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TRADITION IN THE EPITHALAMIUM.

[Certain Greek rhetoricians of Roman imperial times preserve a large amount of material derived from lost Greek epithalamia (Sappho, etc.) which were utilized by Roman poets. This material increases our knowledge of the epithalamium and helps to define the traditional elements in the extant specimens, especially Catullus c. LXI.]

Tradition had a much more powerful influence on the various kinds of poetry in antiquity than it has today. The Roman poets especially, educated by a study of the Greek poets of the past, accepted much that was traditionally Greek and if they were influenced by their Roman predecessors also, it must not be forgotten that these Roman predecessors had themselves made use of the Greeks. Moreover the teachers,—the *grammatici*, the *rhetoires*, and the philosophers—passed on to their pupils much of the same influence. Thus a Roman poet of Cicero's time or of the Augustan Age, for example, was subject to the influence of Greek tradition both directly, through his own reading and study, and indirectly, through his teachers and earlier Roman poets. If he was a poet of ability, there was always originality in his work, but along with this Roman element there was much that was Greek, including particularly in the older kinds of poetry a considerable amount of traditional content and form. A Roman poet rarely broke entirely away from the tradition established for the genre in which he was working.

In the epic, in which the influence of Homer was always paramount, the presence of a large traditional element even in a poem on Roman subjects, as the *Annals* of Ennius, is naturally to be expected. But in the epithalamium—I shall use the word

in its general sense—one expects to find much less of the traditional element because this kind of poetry, both among the Greeks and among the Romans, was always rooted in the current wedding customs and a wedding poem was usually written for a definite occasion. Both of these facts suggested to the poet life rather than books as a basis for his work. The poets availed themselves of this realistic basis, and yet at the same time they retained, so far as we can judge, a surprising number of traditional Greek elements even when they were dealing with the wedding of some Roman friend.

The most beautiful epithalamia which have come down to us from antiquity are the sixty-first and sixty-second poems of Catullus. The first of these affords by far the best opportunity for a study of the traditional aspect of the genre for several reasons: it represents the normal type of wedding poem since it was composed for a definite occasion, the wedding of Manlius Torquatus and Vinia Aurunculeia; it reflects many parts of the wedding ceremony so that it may be compared at many points with the work of others; it contains a large Roman element and so affords a fairer opportunity for such a study than the sixty-second poem in which the Roman element is hardly noticeable.¹

A brief outline of wedding poetry before the time of Catullus shows that the genre was very old and had been often practised. Apart from the allusions to popular songs² there were many examples of the literary epithalamium. It is not certain when the poets began to develop the popular songs into works of conscious art. Perhaps this was already done in the time of Homer. In the *Iliad* (24, 57-62) Hera says that among the guests who attended the wedding of Peleus and Thetis was Apollo with his lyre, and there may have been a tale that on that occasion Apollo used his lyre to good purpose as he sang the wedding song or that he accompanied others who sang it.³ Hesiod is credited by Tzetzes with an epithalamium on the wedding of Peleus and

¹ Cf. c. LXIV, 323-381, in which the atmosphere is intentionally Greek.

² Homer, *Il.* 18, 491-496; ps.-Hesiod, *Shield of Hercules*, 273-280, etc.

³ Cf. Pindar, *Nem.* 5, 41-43 and Aeschylus, fr. 350 (Sidgwick). Homer may imply an epithalamium inserted in a narrative poem as the song of the Parcae is inserted in Catullus c. LXIV.

Thetis; but the fragments show that the poem was probably a narrative of the wedding, not an epithalamium.⁴

In the seventh century we reach firmer ground. Alcman composed wedding songs and beginning with Sappho we have actual fragments. Thus the genre had a history of at least five hundred years before Catullus and his contemporaries practised it. It was reflected in the drama, e. g. the *Troades* (307-340) and the *Phaethon* (fr. 781 N.) of Euripides, the *Birds* (ad fin.) and the *Peace* (ad fin.) of Aristophanes, the *Casina* of Plautus,⁵ and as a separate kind was composed by Philoxenus, Telestis, Theocritus, Callimachus, Eratosthenes, and lastly (among the Greeks) Catullus' younger contemporary Parthenius.

Special types of wedding poetry arose, suggested in most cases by different parts of the wedding ceremony. Some of these types indeed were based on popular songs which were themselves part of the ceremony. Homer applies the term *ὑμέναιος* to a popular song accompanying the procession. In Hesiod the bride is in a car and this custom probably suggested the term *ἀρμάτειον*, which occurs in Roman imperial times. In the fourth century B. C. appears the term *ἐπιθαλάμιον*, originally a song at the bridal chamber. We hear also of a *διεγερτικόν* or *ὄρθριον*, 'waking' or 'morning song', a *κατακοιμητικόν* or *κατευναστικόν*, 'sleeping song'—probably the same as the *ἐπιθαλάμιον* in its stricter sense.⁶

Wedding poetry was by nature festival poetry and most of the single poems seem to have been written for definite occasions. The poems or passages in which the union of mythical characters is celebrated, as the union of Peleus and Thetis (Catullus, LXIV 323-381) or Helen and Menelaus (Theocritus XVIII) are but varieties of this type. Whether the Greek poets earlier than Catullus composed pieces of a more general character dealing with marriage rather than with a wedding, as in Catullus LXII, cannot be certainly determined, but it is not improbable since the poems written for definite occasions and the wed-

⁴ Cf. Tzetzes' testimonium on Hesiod fr. 102 (Rzach). Reitzenstein thinks that Hesiod wrote the earliest epithalamium, cf. *Hermes*, 35 (1900), 73 ff.

⁵ Probably taken over from the Greek sources of the play.

⁶ Cf. Menander's definition, p. 215.

ding orations display a strong tendency to generalize about marriage.⁷

Since the wedding poem, itself developing out of a feature of the wedding, was almost always connected with an actual wedding ceremony, there was a strong tendency on the part of the poets to deal over and over again with the same topics. The Greeks and Italians were related peoples and their wedding customs, though varying locally in the Greek lands and in Italy, were often identical or closely similar, for example, a procession, a feast, sacrifices, the praise of bride and groom, and many others. Thus in spite of local differences—and variations arising at different periods also—there were many Greek customs which were easily understood at Rome. The Roman poets found these customs embodied in the Greek epithalamia in which by the time of Catullus they had been used so often that they had become traditional topics, and the poets had added to them ornamental features which had also become traditional.

The fullest list of traditional topics may be found today in the rhetoricians, for the actual fragments of the genre itself before the time of Catullus, though very valuable, are meagre, and there is only one complete poem, the eighteenth of Theocritus. The rhetoricians, however, seized upon the epithalamium, as they seized upon most forms of creative literature, and developed a variety of wedding composition peculiarly their own, the wedding oration.⁸ They studied Sappho and other poets who had composed epithalamia and utilized their content and to a considerable extent their form. They frequently name and quote the poets. Dionysius refers to Sappho and recommends quoting Homer (*Μέθοδ. ἐπιθαλ.*, 3). Menander recommends the use of the poets for mythological parallels on love and marriage—Sappho, Homer, Hesiod (*Περὶ ἐπιθαλ.*, 12), and at the beginning of the *Περὶ κατευναστικοῦ* he remarks that the poets deal with this theme and the rhetoricians will not stand aloof. The mythological marriage recommended most often by the rhetoricians is that of Peleus and Thetis, which Catullus re-

⁷ Marriage was discussed in other forms of prose, e. g. Theophrastus, *Περὶ γάμου* and Seneca *De matrimonio*.

⁸ Cf. also the *θέσις, εἰ γαμητέον*, e. g. Libanius (ed. R. Foerster), vol. VIII, pp. 550-561.

counted in his sixty-fourth poem. Dionysius⁹ and Menander, although they recommended prose writers as models for the style of the epithalamium, contain many passages which are redolent of poetry. Choricus, in the first of his wedding orations, mentions Sappho twice and quotes Homer; he honors the bride Σαπφικῇ μελωδίᾳ and addresses her in a passage which reflects Sappho: σοὶ χάριεν μὲν εἶδος καὶ ὄμματα μελιχρά, ἔρως δὲ καλῷ περιέχεται προσώπῳ καὶ σὲ τετίμακεν ἐξόχως ἡ Ἀφροδίτη.¹⁰

Himerius, as is well known, follows the poets closely. He names Sappho several times, quotes her, and often reflects her content and her manner. He recommends a poetic style for the prose epithalamium and his own prose exemplifies the principle.¹¹ Thus it became one of the functions of the rhetorician to compose wedding speeches and to teach others how to compose them. And so the recurrent features of the epithalamium became, in the rhetoricians, recognized topics; they had to give instructions 'about the things customarily said' at weddings, as Dionysius puts it,¹² and the phrase sufficiently indicates the influence of tradition.

The purposes of rhetoric required an abundance of illustrative material so that any particular type of composition could be varied to suit the circumstances. This fact is of special value with reference to the epithalamium, for although the poetic genre is so imperfectly preserved, we find in the rhetoricians a very complete list of 'the things customarily said' at weddings.¹³

⁹ Probably the pseudo-Dionysius. The extant rhetorical work dates from the second century and later of the Roman Empire. The date at which the rhetoricians first wrote wedding speeches is not certain. There is a hint in Menander (Περὶ κατευναστ., 18) that this form of composition was in his time rather a new thing, for he says that to the best of his knowledge it had not been sharply defined. Perhaps then we are justified in assuming that no such speeches existed in the time of Catullus. (But unfortunately the text of § 18 is not certain, cf. Bursian's *app. crit.*)

¹⁰ Foerster-Richtsteig, *Orat.* V, 19. The last four words (with a slight alteration) are printed as a fragment of Sappho by Diehl, *Antholog. lyr. gr.* II (1925), p. 381, cf. Catull. LXI, 191-192 (of the groom), neque te Venus neglegit.

¹¹ For details see pp. 213, 219, 220.

¹² περὶ τῶν εἰωθότων λέγεσθαι (Μέθοδ. γαμηλ. *ad init.*).

¹³ Menander expects his pupils to select from his material (Περὶ κατευναστ., 14-17).

No real poet made use of all the traditional topics in a single poem but every epithalamium contained a surprising number of them, and this aspect of the genre can be made clear by comparing any given poem with the work of the rhetoricians—a method which yields interesting results for the sixty-first poem of Catullus.

The most important rhetorical works for our purpose are the pseudo-Dionysius' *Τέχνη ῥητορική*, c. II, *Μέθοδος γαμηλίων*; c. iv, *Μέθοδος ἐπιθαλαμίου*; Menander's *Περὶ ἐπιδεικτικῶν*, Tract. II, c. xiii, *Περὶ ἐπιθαλαμίου* and c. xiv, *Περὶ κατευναστικοῦ*; Himerius' wedding oration, *Oratio I*, and Choricus' *Orationes nuptiales*, v-vi, cf. also Gregory of Nazianzos, *Ἐπαινος παρθενίας*, and the *Θέσις*, *εἰ γαμητέον* of Aphthonius and Libanius.¹⁴

In the sixty-first poem Catullus has much to say about the functions and attributes of Hymen. His account of Hymen agrees in many details with what the rhetoricians say of Gamos. In Catullus Hymen gives the bride to the groom; he inspires love and is the uniter of the pair. He is young, and he possesses certain physical characteristics which seem to be feminine—the snow-white foot (9), the high, clear voice (13). He carries a torch (15) and even wears a veil (8). Menander remarks in the very first sentence of his *Περὶ ἐπιθαλαμίου* that the chief topic of the *λόγος ἐπιθαλάμιος* or *γαμήλιος* is the god of marriage, and he includes among his directions almost all details cited above from Catullus, even hinting at the curious conception of the god's effeminacy: ¹⁵ *νέος ἐστὶν ἀειθαλὴς ὁ Γάμος, λαμπάδα φέρων*

¹⁴ The editions cited are as follows: pseudo-Dionysius ed. Usener-Radermacher, 1904; Menander ed. C. Bursian, (Abh. bayer. Akad. xvi, 1882; Himerius ed. Dübner, 1849, and the new fragments, cf. H. Schenkl, *Herm.*, 46 (1911), 414 ff.; Choricus ed. Foerster-Richtsteig, 1929; Gregory Naz. ed. Migne, *Patrolog. graeca*, vol. 37, pp. 521-573; Libanius ed. R. Foerster, vol. VIII (1915); Aphthonius, *Rhetores Graeci*, ed. H. Rabe (vol. X, 1926). R. Reitzenstein has commented briefly on the rhetoricians and their relation to Greek poetry, cf. *Hermes* 35 (1900), pp. 73 ff. T. C. Burgess, *Epideictic Lit.*, Studies in Class. Philol., Chicago (1902), pp. 170 ff., remarks that a large number of the varieties (nearly thirty) of the epideictic speech recognized by Menander continue forms long established in poetry. The *λόγος ἐπιθαλάμιος* is one of these, cf. also the encomium, the propempticon, the genethliacon, etc.

¹⁵ Catullus' full conception of Hymen (the passages cited above rep-

ἐν ταῖν χεροῖν, ῥοδινὸς ἐν ἐρυθρήματι τὸ πρόσωπον καταλαμπόμενον, ἕμερον ἀποστάζων ἐκ τῶν ὀμμάτων καὶ τῶν ὀφρύων (23). ὁ θεὸς οὗτος συνάπτει μὲν οὐρανὸν τῇ γῇ, συνάπτει δὲ Κρόνον τῇ 'Ρέα (6).

The conception of Hymen (Gamos) is closely connected with the more extensive topic of the advantages and blessings of legal marriage. He is the *dux bonae Veneris, boni coniugator amoris* (44-45), incomparable among the gods (48-49, 64-65, etc.). Legal marriage is necessary for the home and the family (66-69 cf. 205-208) and for the safety of the fatherland (71-74) because legitimate children spring from it. The groom must put aside free love (134-136, 139-141), the bride must be pure and do her duty (144-146, 217).

The rhetoricians have all these details and many more. Dionysius considers legal marriage as most advantageous to man. By abandoning irregular love men gain a reputation for *σωφροσύνη* and the statement that even if a lover approves his favorite it is much more fitting for him to approve marriage closely parallels the thought of vv. 121-141 (on the concubinus and the groom). The fatherland is benefitted by the children of legal marriage; marriage is necessary for the salvation of the race.¹⁶

One of the main points of the epithalamium, says Menander, should be the family. Gamos was the first god who came into

resent only a part of the god's attributes) seems to have included functions which originally belonged to Gamos, cf. Wilamowitz, *Hellen. Dichtung* II (1924), 280 ff. But the two were easily confused. Certainly the feminine attributes are better suited to Hymen, though Menander is speaking of Gamos. Waser, in his article on Gamos (Pauly-Wissowa), is puzzled by a representation of Gamos (on a gem) as a woman. But literature and art here support each other: there was clearly such a conception. The veil, which appears only in Catullus, is part of this conception, and perhaps the slippers and chaplet also, cf. Ellis *ad loc.* and Kroll, who cites Cornelius Balbus ap. Servium on *Aeneid* 4, 127: *Hymen* is characterized as *pulchritudine muliebri*. The feminine conception may symbolize the loss of the male element after *συμπλοκή*, cf. Attis, who is at first masculine, then feminine (Catull. 63, 4-8 and 27 *notha mulier*). Attis is given the hands of a woman: *niveis . . . manibus*. Seneca, in the wedding song of Jason and Creusa (*Medea*, 56 ff.), alludes to the god as *gradu marcidus ebrio* (69), probably referring to the same general characteristics, cf. *marcidus*.

¹⁶ Μέθοδ. γαμ., 3, 4, and 8; ἐπιθαλ., 2.

being after Chaos; he is the cause of everything and he conquers everything. The children (of legal marriage) will exalt the fatherland. Marriage means, through the children, the salvation of home, property, and family.¹⁷

Gamos is similarly exalted in Himerius¹⁸ and the discussions of Libanius and Aphthonius deal for the most part with the advantages and blessings of marriage.¹⁹

Marriage was not only illustrated from myth, but was compared to other unions in the world of animal and plant life. The most famous of these comparisons is the beautiful passage in which Catullus makes use of the vine and the elm (LXII, 49-58, cf. LXI, 102-105). This precise form of the comparison does not occur in the rhetoricians and probably it is a Roman variation, but the general idea is Greek. Menander advises the wedding orator that he may remind the pair, if it should be spring, that trees are now forming unions with trees.²⁰ A little later he suggests that myths about the loves of trees may be introduced.²¹

Praise of the bride and groom was a regular feature of wedding compositions, both poetry and prose, from the time of Sappho.²² There was a natural inclination to dwell on the bride and this is illustrated in Catullus. Vinia is like Venus when the goddess came before her Phrygian judge (16-19);²³ hers is the beauty of flowers—the Asian myrtle (22), the hyacinth (89), the parthenice and the poppy (187-188). No woman has surpassed her in beauty (82-86). She is pure (217-223), modest (79) and loving (169-171). The groom is handsome (190-192), loving (195-198), and of ancient lineage (206-208).

The rhetoricians dwell at length on this topic. I have already quoted a passage from Choricus in which the bride's beauty is

¹⁷ Περὶ ἐπιθαλ., 1 and 6; Περὶ κατενν. 11 and 25.

¹⁸ Orat. I, 7-10.

¹⁹ Metellus Numidicus (ap. Gellium I, 6) emphasizes the necessity of marriage. Probably there was a purely Roman tradition on this point.

²⁰ Περὶ κατενναστ., 12.

²¹ Ibid., 15.

²² Cf. Sappho, *Anth. lyr.* (Diehl), fragg. 116, 117 (?), 123, 127, 128, 130.

²³ Choricus (VI, 18) employs this myth, but in another connection.

praised. Himerius, as we might expect, is truly lyric. He has to use, he says, the language of the poets to describe the flower-like beauty of the bride (τὸ ἄνθος τῆς ὀψέως); she is white as milk, her cheeks are like roses, etc., etc.²⁴ She is the very figure (ἄγαλμα) of Aphrodite, she exhales roses and love, and she deserves Sappho's own praises: "ὦ καλή, ὦ χαρίεσσα πρέπει γάρ σοι τὰ τῆς Λεσβίας ἐγκώμα."²⁵

It is unnecessary to dwell longer on the praise of physical beauty. The bridegroom received at least a small part of it in Sappho as in Catullus. An interesting detail is the comparison of the bride to a flower or a fruit, the groom to a tree. This kind of compliment is as old as the main topic itself. Sappho is clearly the source of it.²⁶ Catullus accepts it and the rhetoricians recommend it.²⁷

In individual cases the encomium had to be adapted to the facts and there might be difficulties even in the praise of the bride's charms. This last point troubled the Greeks more than the Romans because the Greek maiden of good family was carefully secluded before marriage. And so we find Menander recommending to the wedding orator caution in praising the bride's beauty, unless he should chance to be a relative; but he may avoid the danger of scandal by saying 'we have heard' thus and so!²⁸

The other possible subjects for praise had to be treated with similar care, e. g., the lineage, the accomplishments, the mental endowments of the pair. Catullus can dwell on the ancient name of Manlius Torquatus, but the comparatively unknown family of the bride afforded him no such opportunity; his praise of Vinia (apart from her beauty) is couched in rather general terms. Again Menander suggests how to avoid the difficulties.²⁹ If you praise the families of both bride and groom, he says,

²⁴ *Orat.* I, 19-20.

²⁵ Edmonds, *Lyra graeca* I, 1922, Sappho, *frag.* 157, makes an actual fragment of this passage. Diehl and Lobel are more conservative.

²⁶ Cf. *fragg.* 116 (the apple), 127 (the groom is like a sapling).

²⁷ Menander, *Περὶ ἐπιθαλ.*, 19, compares the groom to an olive tree, the bride to a date palm.

²⁸ Menander, *ibid.*, 20.

²⁹ Cf. Himerius, *Orat.* I, 13: the lineage of both is praised.

you should try not to exalt one at the expense of the other;³⁰ in any case seek for something that is famous, and if the groom himself is not available, try to find relatives who are good subjects for encomium; if neither family is renowned, turn to elements of character! This was apparently Catullus' method in the case of Vinia.

Harmonious love (*concordia*, *ὁμόνοια*) was an important topic of the epithalamium. The idea is well expressed in our *Book of Common Prayer*. At the end of the wedding ceremony, the clergyman prays that "these persons . . . may ever remain in perfect love and peace together." In the sixty-first poem Catullus does not use the word,³¹ but he emphasizes the idea (31-25, 100, 139-146). The rhetoricians have much to say on the subject.

The wedding pair, says Dionysius, should be urged to the greatest possible harmony; the wedding orator should demonstrate its blessings and should say in fact that there is no greater blessing,

ἢ ὅθ' ὁμοφρονέοντε νοήμασιν οἶκον ἔχῃτον
ἀνὴρ ἡδὲ γυνή.³²

Choricus praises *ὁμόνοια* very prettily: ἡδὸν μὲν λύρα χορδῶν συμφθεγγόμενων ἀλλήλαις, ἡδὸν δὲ ζεύγος συνωρίδος ὁμονοούσης, ἡδιστον δὲ πάντων γυνὴ ταῦτα φρονούσα τῷ συνοικοῦντι.³³

To Menander *ὁμόνοια* is one of the blessings of marriage, and he advises the orator, as he exhorts the wedded pair, to say that they will have dreams which will prophesy for them the birth of children, *ὁμόνοια* throughout life,³⁴ the increase of wealth, etc.

The exhortation of the pair to unite in love was of special importance, cf. Catullus LXI, 204 (ludite), 227 f., 104-105 (implicabitur, cf. *συμπλοκή*). For Menander this was the essence

³⁰ Περὶ ἐπιθαλ., 14 and 17. Many possible subjects of praise are mentioned by the rhetoricians, e. g. (for the bride) skill in spinning and weaving, in music; (for the groom) excellence as a student, oratory, wisdom, physical strength, bravery, etc., etc.

³¹ But cf. LXIV, 334-336 (Peleus and Thetis).

³² Cf. Μέθοδ. γαμ., 3, cf. 5-6; ἐπιθαλ., 3. Homer, *Od.* 6, 182-185.

³³ *Orat.* VI, 40.

³⁴ Catullus implies this lifelong *concordia*, LXI, 151-156, cf. Theoc. 18, 51 f., ἴσον ἔρασθαι ἀλλάλων . . . ἀφθιτον ὄλβον.

of the *κατευναστικός λόγος*, which he defines as *προτροπή πρὸς τὴν συμπλοκὴν*; it deals with the consummation of marriage.³⁵ He urges the wedding orator in such a speech to keep to what is honorable and dignified, to say nothing unseemly—a principle which is well illustrated, according to ancient standards, by Catullus in the sixty-first poem and by Himerius in his wedding oration. Sappho alludes to the consummation of the wedding (fr. 128) and other fragments probably come from songs connected with this part of the ceremony, e. g. fr. 124 (the doorkeeper), 123 (address to the groom), 129 (farewell to bride and groom). In Theocritus the exhortation is rather mildly expressed (XVIII 54-55). The later poets as compared with the popular epithalamia undoubtedly exhibited considerable restraint in dealing with this topic. Probably Sappho and her contemporaries were more realistic.³⁶

Closely connected with the preceding topic is the wish (or prayer) for children. In Catullus (LXI, 204-223) and in Theocritus (XVIII, 50 f.) the prayer occurs near the end of the epithalamium and this seems to have been its regular position, for the rhetoricians put it last (or next to the last) although they indicate that the order of the other topics is not fixed.

Catullus wishes that a son may be born who shall be like his father and so attest his mother's purity. This detail also is traditional. Menander counsels the wedding orator to say that the pair will have children like themselves³⁷ and Himerius, at the end of his oration, prays to the Genethlioi to give legitimate children to the wedded pair, cf. Choricus, vi, 32. The mytho-

³⁵ *Περὶ κατευναστ.*, 1 and 3. For Dionysius the proper term for a speech at this stage of the wedding is *ἐπιθαλάμιος λόγος*.

³⁶ Demetrius (*Περὶ ἔρμ.*, 167), speaking of Sappho's abuse of the groom and the doorkeeper (fr. 124), criticizes her for the use of *περὶ ὀνόματα*—words more suited to prose than poetry. This is the sophisticated opinion of a later age. Sappho was here reflecting the popular epithalamium. The rhetoricians advise a description and praise of the wedding chamber. Catullus mentions the chamber, using one of the Greek terms (185 *thalamo*), but he concentrates his praise on the wedding couch (107-112). This is probably a Roman variation of the Greek topic since the couch (*lectus genialis*), not the chamber, was the important symbol in Roman life, cf. Tigidas, fr. 1 (Morel), *felix lectule talibus sole amoribus*.

³⁷ *Περὶ ἐπιθαλ.*, 22, cf. *Περὶ κατευναστ.*, 7.

logical parallel, Telemachus and Penelope, used by Catullus, does not occur in this connection elsewhere, but the rhetoricians frequently advise the use of such parallels. The method at least is traditional.

The season of the year and the hour of the day are common topics in the wedding orations. Menander suggests details for spring, winter, and summer. If, for example, the wedding occurs in the spring, the wedding orator may speak of nightingales and swallows, of the earth blooming with flowers, of the trees, etc.³⁸ The hour, i. e. the evening, was a still more fruitful topic for bursts of oratory. Speak of the beauties of the night, says Menander, of the stars, of Orion, and say that as everything has its fitting time, so the wedding has received the night as a gift of the gods.³⁹ Catullus does not deal directly with the season, but it is probable that his many references to flowers are in part connected with this topic.⁴⁰ Certainly the other topic—the hour and Hesperus—is emphasized in the sixty-second poem, cf. LXIV, 229. Sappho also alludes to Hesperus,⁴¹ and since weddings, in Greece as in Rome, regularly occurred in the evening, the topic is a very ancient one. In the sixty-first poem the hour is implied by the procession, the torches, and especially by the closing scene at the bridal chamber.⁴²

We need not dwell on the singing, the music, the dance, and the general revelry which were regular concomitants of the wedding from the time of Homer to that of the rhetoricians, and are so treated by Menander: ἡμεῖς ῥόδοις καὶ ῥοῖς στεφανωσάμενοι καὶ λαμπάδας ἀνάψαντες περὶ τὸν θάλαμον παίξωμεν καὶ χορείαν συστησώμεθα καὶ τὸν ὑμέναιον ἐπιβοώμεθα, τὸ δάπεδον πλήττοντες τοῖς ποσίν, ἐπικροτοῦντες τῷ χεῖρει, ἐστεφανωμένοι πάντες.⁴³ These details are obvious in Catullus and are summed up in the phrase *lusimus satis* (225).

³⁸ *Περὶ κατευναστ.*, 12-13, cf. 23.

³⁹ *Ibid.*, 22 and 5 (Hesperus, the Wain, etc.).

⁴⁰ The lavish references to flowers in the epithalamia may have originated in the preference for early Spring as the best season for weddings,—at Athens the month Gamelion (Jan.-Feb.); at Rome, April.

⁴¹ *Fragg.* 132a, 133. *Frag.* 120 is not certainly from an epithalamium.

⁴² If we take *abit* (90, 105, 112, 192) as perfect, the implication is still clearer, cf. Baehrens' note on v. 90.

⁴³ *Περὶ κατευναστ.*, 16, cf. Libanius, *ad. fin.*

Hitherto we have dealt chiefly with matters of content. The form and the general technique of the epithalamium were also strongly influenced by tradition. Some details have already been mentioned which have a place here, for example the use of mythological parallels—a method not peculiar to the epithalamium alone—and the comparison of the bride to a flower. To these we may add the meter, the proem, the refrains, the comparisons and figures, and many more. At present however I wish to examine in detail only one matter of technique because it seems to me that its history has not been understood.

In the sixty-first poem the most interesting feature of the technique is the mimetic-dramatic character — the manner in which the poet takes part in the ceremony assuming the rôle of a master of ceremonies or chorus leader. It is the poet who invokes Hymen (cinge, 6, veni, 9, pelle, 14, etc), urges the girls to sing (dicite, 39), addresses the bride (flere desine 82, prodeas 91, 12, 16, 106, 113, etc. 146 etc.), the wedding couch (107), directs the boys to lift their torches (114) and sing (116), addresses the favorite slave (125, 132-133), the groom (135 etc.)—all the persons in fact. Sometimes he maintains his individuality as in 189, At, marite, ita me iuvent, or 209, Torquatus volo parvulus, sometimes he associates himself with the rest of the company, as in 225, lusimus satis. This is the device which more than anything else gives life to the poem. No other completely extant wedding poem is composed in this way, but the same technique is employed in other forms of poetry, for example in some of the Hymns of Callimachus (II, V, VI). Hymn V, *The Bath of Pallas*, is a very good illustration. The poet exhorts a band of maidens to come prepared to escort Pallas to the bath. He speaks in the first person cf. ἐσέκονσα (3), ἐγώ (55), ἐμός (56), and frequently addresses the maidens (4, 13, 17, 29, 31); he exhorts the goddess to come forth (33, 43, 55). And while the maidens await her coming, he tells them the story of Teiresias (57-136). The story ended he announces that the goddess is coming (137). Even in detail this is clearly the technique employed by Catullus in the sixty-first poem. The same technique occurs in the third poem of Theocritus, the so-called *Serenade*. It is found in Augustan poetry, for example in Horace's *Odes* I, 27, natis

in usum, etc., but the best parallel is Tibullus' II, 1, the account of the country festival (Ambarvalia) in which the poet takes the rôle of a householder and priest—a director of the festival on his own estate, cf. also II, 2; II, 5, etc.⁴⁴

There has been a tendency among scholars to attribute the invention of this quasi-dramatic—not strictly dramatic—method of presenting a ceremony or a series of events to Callimachus or to Theocritus.⁴⁵ In my opinion the credit should go to Sappho, who, as I believe, employed this method in her epithalamia.

Among the fragments of Sappho's epithalamia there are a number in which somebody addresses the groom and the bride:

ὄλβιε γάμβρε, σοὶ μὲν δὴ γάμος, ὥς ἄραο
ἐκτετέλεστ', ἔχεις, etc.,

χαῖρε, νύμφα,
χαῖρε, τίμιε γάμβρε, πόλλα, (fr. 128),

cf. also fr. 130. Somebody urges that the roof (or lintel?) be lifted high, the bridegroom is so tall (fr. 123):

*Ἴψοι δὴ τὸ μέλαθρον, etc.

Sappho certainly made use of real dialogue in her epithalamia. Demetrius quotes a passage in which the bride addresses Maidenhood and Maidenhood replies (fr. 131). Probably Sappho used informal dialogue also, cf. fr. 122: δώσομεν, ἦσι πάτηρ, words which have been assigned with probability to an epithalamium. But fragments 128 and 130 are certainly best interpreted as words of Sappho herself in the rôle of poetess—choragus at some wedding—a rôle corresponding to that which Catullus assumes in the sixty-first poem.⁴⁶ This view is sup-

⁴⁴ R. Reitzenstein, *Hellen. Wunderesähl.* (1906), 159 ff.; C. Pasquali, *Quaestt. Callim.*, pp. 148 ff.; L. Deubner, *N. Jhb.* 47 (1921), 361-378; Wilamowitz, *Hellen. D.*, II (1924), 282; R. Heinze on Horace's *Odes*, I, 27 (6th ed. 1917); E. Stemplinger, *Der Mimus in der horazisch. Lyrik*, Ph. 75 (1919), 466-469.

⁴⁵ Cf. Pasquali and Deubner. Wilamowitz, though he does not discuss its origin, thinks that Catullus owes this technique to Callimachus. I have not yet seen the dissertation of Otto Friess, *Beobachtungen über die Dargestellungskunst Catulls* (1929).

⁴⁶ Cf. also c. 42, but not, as Kroll thinks, c. 62, which is really dramatic in form and can be divided among speakers or singers.

ported by the fact that the rhetoricians, who derive from poetry the principles which they recommend for the wedding speech, say that the orator should 'exhort the groom and the bride', 'utter the prayer', 'exhort the youths; summon the hearers . . . to escort the pair to the wedding chamber'.⁴⁷ The wedding orator is thus encouraged to assume the very rôle that we find in Catullus. It might be said that since the rhetoricians are later than Catullus they took their idea from the Alexandrian writers who certainly employed it in other forms of poetry and so probably in the epithalamium. But fortunately Himerius, who often quotes and paraphrases Sappho—so closely indeed that Edmonds and others attempt to reconstruct Sappho's verse from Himerius' prose!—is explicit.

In the preface to his first oration Himerius says that for the style of the epithalamia the best principle is to follow the poets. The actual oration begins with § 3, which I paraphrase briefly: They say that Apollo sang a wedding song at the bridal chamber. So it is fitting for me, youths, since I am devoting my muse to nuptial dance and love, to drop my stricter style in order that I may take part with maidens in the dance (*χορεύσωμεν*) in honor of Aphrodite. (4) (here I translate): "But that it is difficult to invent a song tender enough for the goddess we may learn from the poets themselves who though skilful in matters of love, . . . have left the rites of Aphrodite to Lesbian Sappho, the singing to the accompaniment of the lyre and the composition of the song at the chamber. She enters (*εἰσῆλθε*) after the contest into the chamber (*θάλαμον*), puts up wreaths, spreads the couch, urges the maidens into the house, brings Aphrodite on the car of the Graces and a band of Loves to join in the revels.⁴⁸ She binds with hyacinth the hair of the goddess except those tresses which she allows to play about her face or ripple in the breeze. She stations the Loves, their wings and locks adorned with gold, before the car, and as they escort the procession moving their torches on high, she urges

⁴⁷ Menander, *Περὶ κατευναστ.* 20-22. Both Himerius and Choricus in their wedding speeches illustrate the directions given by Menander.

⁴⁸ The text of this passage is broken, but the general connection is clear.

them on (*σπεύδει*). (5) For me also this exhortation (*σπούδασμα*) is necessary. . . .

(20) If a song were needed, I would provide this: 'O bride exhaling roses and love! Go to the couch with tender play, sweet to the bridegroom! May Hesperus lead thee as thou dost go willingly, venerating silverthroned Hera of the wedding bond.' (21) But where are my bands of youths and maidens? My speech yields the rest to you. Let some one seize a great torch: let another shout. Let song pervade all. . . . I leave the dance to the dancers, but I will stand by the chamber and utter prayers to Fortune and Love and the gods of birth."

According to Himerius, then, the poets regarded Sappho as supreme in matters of love and especially in wedding poetry. In her poetry she acts, she exhorts. She enters the bridal chamber, puts up garlands, spreads the couch, urges on the maidens, brings Aphrodite, etc. Himerius himself resolves to follow her example and he does so—especially at the end of his speech: "let some one seize a torch, some one else raise a shout," etc., etc.

Clearly Sappho, like Catullus, represented herself in her poetry as taking part in the ceremony; she invoked and described the gods, moved about, directed various arrangements, urged on the youths and maidens.⁴⁹ To her, not to the Alexandrian poets, we must assign the earliest known application of this vivid literary method to festival poetry. It is essentially a lyric method. Of its simpler form there are abundant traces in early Greek lyric, e. g. Alcaeus (fr. 90):

κάββαλλε τὸν χείμων' ἐπὶ μὲν τίθεις
πῦρ, etc.

cf. Horace's imitation (c. I, 9, *Vides ut alta*, etc.). But a better idea of it can be obtained from a complete poem. Consider the twenty-seventh poem of Catullus. The poet wishes to present a picture of himself enjoying the pleasures of wine. 'Boy, pour me stronger cups,' he cries. "But you, water, ruina-

⁴⁹ Note that Himerius has been talking about Sappho's poetry, not about real actions of Sappho in person, and that some of the acts mentioned must be figurative, e. g. bringing Aphrodite and the Loves. Clearly all of the actions are taken from Sappho's poetry.

tion of wine, away with you to the sober! Here we have the pure liquid of the wine god!" The poet is in the act of drinking, he addresses and exhorts his slave, expresses his opinion, etc.⁵⁰ Horace's *Persicos odi* (c. I, 38) is very similar. If we multiply the details of such a scene and the persons taking part in it, the method becomes somewhat more complicated as, for example, in Horace's picture of a drinking bout (C. I, 27) for which I supply stage directions: (*The poet comes suddenly on a drinking party just as the voices of the drinkers are being raised and an open quarrel is imminent. Standing in the doorway he quiets them*): "Goblets were meant for pleasure. Only Thracians fight with them. Away with such a barbarous custom. Do not outrage revered Bacchus with bloody strife . . . but cease your impious din and stay quietly on your couches." (*They subside, and the poet continues*) "Would you have me join you? Then let our young friend here tell us who has smitten him with love." (*A pause*) "You hesitate? I'll drink on no other condition. You have nothing to be ashamed of. Come! Drop your secret in this safe ear of mine." (*The youth whispers her name*) "Poor fellow! in what a whirlpool you've been struggling! What magic can ever extricate you from such a peril as *she* is!"

Richard Heinze well characterizes this ode as a scene from a symposium dramatically described in the words of the poet who takes part in it, and he adds that its technique—the representation of the progress of an action during the course of the poem

⁵⁰ Kiessling's Horace, *Odes*, 6th ed. revised by R. Heinze (1917), headnote on I, 27. Heinze repeats Porphyrio's note, cuius sensus sumptus est ab Anacreonte ex libro tertio, and considers Anacreon fr. 43 to be probably a part of the original:

"Ἀγε δὴ, φέρ' ἡμῖν, ὦ παῖ, κελέβην, etc.

cf. Edmond's transl. (*Lyra graeca*, 1924, II, p. 177): "Come bring me a jar, lad; I want my first drink; ten ladles of water to five of wine, for I would e'en play the Bacchanal in decent wise. . . . Come let us give up this Scythian drinking with uproar and din over our cups, and drink moderately between pretty songs of praise."

It is quite possible that Horace had this passage in mind when he wrote vv. 1-8. Certainly he made use of the same technique. Perhaps Anacreon, like Horace (9 ff.) passed to an erotic theme. For Anacreon's address to the slave who serves the wine, cf. Catull. 27 and Horace C. I, 38 (cited above).

—is well known from Hellenistic and Roman festival poems (*Festgedichte*).

We may now add that the same technique was certainly employed by Sappho in her wedding poetry and that many *epithalamia*—Catullus, c. LXI, is a good example— were undoubtedly just as truly festival poems as Tibullus' description of the country festival, which Heinze cites.

Thus Sappho extended her lyric technique to themes involving a succession of scenes and a throng of persons. In such poems the purity of her lyric power was of necessity somewhat alloyed—the canvas was a bit too large—but the result was a new life for subjects which were essentially descriptive and narrative. Contemporaries of Sappho may have practised the same method. Certainly in the Alexandrian Age, when poetry was composed chiefly for recitation and reading, this art was eagerly imitated and became, as it is in Catullus and Tibullus, a recognized literary device. Catullus must have known in Greek poetry many more examples than we have today, but its use by so ardent an admirer of Sappho in *epithalamium*, a genre in which she was supreme, may safely be attributed to direct Sapphic influence.

The sixty-first poem is a very interesting combination of Greek and Roman elements. In a general way the Greek element occurs chiefly in matters of form and technique, the Roman in the content. Catullus was adapting a Greek genre to the conditions of a Roman wedding in high life. In so doing he made use of much that was Roman together with such Greek elements as his cultured audience might easily understand, and he carried out his purpose by literary methods which he had learned from the Greek poets. He wished to Romanize this kind of Greek poetry; at the same time, he wished to continue the Greek tradition, not to break with it. He could easily have made the poem much more Roman, more original, but he did not choose this course. The ancient conception of originality differed greatly from our own; the poets held much more closely to tradition, and the power of tradition over even the greatest ancient poets is nowhere better illustrated than in the sixty-first poem of Catullus.

So far as Catullus is concerned the present paper is rather

strictly limited to an examination of the traditional features of the Greek epithalamium as they appear in a single poem. Even in this poem there are many other phenomena attributable to a wider use of Greek literature—an influence extending beyond the confines of wedding poetry. The theme is in fact part of a larger subject: the relation of all the work of Catullus to the Greek. On this subject I hope soon to publish a more comprehensive study.

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ON THE USE OF THE TERM 'ELLIPSIS'

[Need of definition of the term "ellipsis". General definition. Some applications, especially with reference to problems of conditional speaking.]

It was customary at one time to designate as "elliptical" any expression that could be rounded out into more explicit form by addition or by periphrasis. With the advent of psychological syntax it has become necessary to define the term "ellipsis" more closely, if confusion in grammatical discussion is to be avoided.¹

Within a narrow range, of course, there is little or no room for difference of opinion. For example, it is quite obvious that something is "left out" in such a phrase as *Hectoris Andromache*. The reference is not to a slave or a daughter of Hector, and the "understanding" of *uxor* is essential to the meaning of the expression.

There is a quite different situation in the case of a formula like *decies sestertium*. That at the start this was an obviously elliptical phrase there can be no doubt. But both educated people and the uneducated have a way of catching up phrases as units, without critical analysis of the elements which enter into them; and among the Romans who knew that *decies sestertium* stands for "a million sesterces" probably only a small proportion was alive to the fact that the form in *-um* is a genitive plural dependent for its construction upon an implied *centena milia*. Without such consciousness the phrase loses its elliptical character; and tangible evidence of that loss would seem to be found in the appearance of such variants as *decies sestertii* and *decies sestertio*.

In this connection, the history of the phrase *milia passuum* is interesting. Doubtless there were times and circumstances under which the literal force of *passuum* was felt; but that the phrase frequently was conceived as a unit marking the larger distance seems clear from the common abbreviation to *milia*. Granting that, in the first instance, *milia* so used was felt to be "elliptical", it would seem certain that it did not remain so for all

¹ With the treatment of the subject attempted in this paper it may be interesting to compare and contrast "Die lateinische Ellipse," etc. by B. Maurenbrecher, in the *Streitberg-Festgabe*, Leipzig, 1924, pp. 234 ff.

times and for all persons, but verged in the direction of the English word "mile".

In seeking a basis for a definition of the term "ellipsis", it is essential to remember that there are three main steps in the process of thought and its communication, namely, (1) the conception of the ideas in the mind of the speaker, (2) the choice of means of verbal expression to initiate a train of thought in the mind of the hearer, and (3) the latter's interpretation of the spoken words.

The first of these steps, that is, the genesis of the thought in the mind of the speaker, is a separate problem well left to the psychologist. In the present state of our knowledge, little benefit to the study of syntax can be hoped from this angle. For the schemes of thought that flash through the mind are often disassociated with words; and, furthermore, it cannot by any means be taken for granted that the speaker's verbal expression mirrors faithfully the order and progress of the conceptions that move him to express himself.²

A proper field for the study of syntax opens at the second step, namely, at the point where the speaker chooses words for the purpose of initiating a train of thought in the mind of the hearer.

The use of the terms of a familiar vernacular to produce certain impressions upon the mind of a hearer becomes so much a matter of second nature that we do not readily realize how far removed from a direct picture of an original mental state are even many of the verbal expressions that might appear to be in the highest degree spontaneous.

The matter is best tested by an extreme case, such as that of the *Georgics* of Vergil, which are thought to have been wrought out at the rate of less than a verse a day. In such a situation, what could syntax hope to gain through speculation as to the poet's "original train of thought"?

In the recorded lines, we have a studied attempt to make certain impressions upon the mind of the hearer or reader; and in the adjustment of verbal means to this end syntax finds a valid field for study.

In the light of the above considerations, it may be said that

² For a discussion of this matter see "Thought Relation and Syntax", *University of California Publications in Classical Philology*, VIII, 272 ff.

ellipsis is to be recognized when a speaker neglects, in his verbal expression, an item which is essential to the train of thought developing in the mind of the hearer.

Of course it is much easier to frame such a definition as this than it is to apply it; for in a given case opinions may vary on the question whether or not a gap is left for the hearer to fill. In certain situations, however, rather satisfactory conclusions may be reached, as noted at the beginning of this paper. Consider next the problem illustrated in the two following sentences:

Tacitus, *Ann.* iii. 42. 4: Florus, . . . visis militibus, qui effugia insederant, *sua manu cecidit*.

Ovid, *Her.* vii. 196:

Ipsa sua Dido concidit usa manu.

Shall we say that *sua manu cecidit* of the first of these passages is elliptical, because the second employs the participle *usus* in like connection? Rather clearly not; for *sua manu cecidit* is complete logically and syntactically, whereas *sua concidit usa manu* may properly be classed as redundant.³

Such employment of the participle *usus* is noteworthy for its frequency; e. g.

Caesar, *B. G.* i. 46. 4: Posteaquam in vulgus militum elatum est qua arrogantia in colloquio Ariovistus *usus* omni Gallia Romanis interdixisset. . . .

Caesar, *B. C.* iii. 95. 5: protinusque omnes ducibus *usi* centurionibus tribunisque militum in altissimos montes . . . confugerunt.

Tacitus, *Ann.* ii. 38. 1: Inclinatione senatus incitamentum

³ In this redundancy something more is involved than the mere interjection of the participle *usus*. In the first of the examples cited, *sua manu* indicates the means or the manner, while in the second it functions as the object of *usa*. This then is a case of redundancy through periphrasis; with it may be compared a sentence in which an indicative form of *utor* is employed:

Tacitus, *Hist.* ii. 88. 3: Incuriosos milites—*vernacula utebantur urbanitate*—quidam spoliavere, abscisis furtim balteis an accincti forent rogitantes.

Without the interjection of *utebantur*, the ablative phrase *vernacula urbanitate*, as an expression of manner, would unite with *spoliavere* in a statement logically and syntactically complete. The periphrasis raises the item to the rank of an independent sentence, with indicative verb and object.

Tiberio fuit quo promptius adversaretur his ferme verbis *usus*:⁴

A considerable scattering of other participles and adjectives in like redundancy is found, especially in Valerius Maximus. In each of the following examples note how the subtraction of the italicized word would leave a sentence logically and syntactically complete:

Valerius Maximus, iii. 2. *E.* 5: *civitas Spartana iacet armis nostris abiecta.*

Valerius Maximus, v. 5. 3: *per modo devictam barbariam Namantabagio duce solo comite contentus*⁵ *evasit.*

Pliny, *Pan.* 12. 4: *illi quidem latibulis suis clausi tenebantur.*

Caesar, *B. G.* vii. 77. 11: *cuius rei timore exterriti diem noctemque in opere versantur.*

Vitruvius, ix. *Praef.* 18: *His auctoribus fretus, sensibus eorum adhibitis et consiliis, ea volumina conscripsi.*

Livy, iii. 60. 9: . . . *priusquam totis viribus fulta constaret hostium acies.*

Suetonius, *Tib.* 3. 1: *familia . . . floruit octo consulatibus, censuris duabus, triumphis tribus, dictatura etiam ac magisterio equitum honorata.*

Valerius Maximus, vii. 3. *E.* 9: *cum . . . Furius Camillus . . . validissimo instructus exercitu venisset. . . .*

Valerius Maximus, ix. 12. *E.* 4: *Canum morsibus laniatus obiit.*

Valerius Maximus, iv. 3. 5: *cum . . . magnum pondus auri publice missum attulissent. . . .*

Valerius Maximus, iv. 8. *E.* 1: . . . *ut eos religione motos munificentia sua uti cogeret.*

Propertius, ii. 13. 22:

Nec sit in Attalico mors mea nixa toro.

Apuleius, *Met.* ix. 17: *uxorem generosam et eximia formositate praeditam.*

In the study of the subject of ellipsis, another problem is presented by a type of sentence affected by several authors, especially by Tacitus; e. g.

Tacitus, *Ann.* i. 35. 5: *Ferrum a latere diripuit, elatumque*

⁴ For other examples, see *University of California Publications in Classical Philology*, X, 69. In what seems to be an extreme instance of this usage the phrase *brevi intervallo* is made an object:

Florus, *Verg.* 184. 2 (Rossbach): . . . *cum ille interim brevi intervallo usus* "Et quid tu", inquit, "tam diu in hac provincia?"

⁵ *Al. contemptus.*

deferebat in pectus, ni proximi prensam dextram vi attinuisent.

It has long been an article of faith with Latinists that conditional sentences of this sort involve an ellipsis, i. e. "his uplifted sword he was for plunging into his breast (and would have driven it home), had not the bystanders seized and forcibly held his right hand." To the present writer it seems that this sort of treatment quite misses the intent of Tacitus, who, beyond most other authors, delights in "jolts" that give an anacoluthic effect.

So in the case of a sentence like the above. As the reader follows the words, his thought proceeds somewhat like a cork carried downstream; for a time it goes in a straight line, then it strikes an unexpected obstacle, and, after a scarcely appreciable pause, glances off on a divergent course. To assume ellipsis is to spoil the effect for which Tacitus is striving.

It may help to an appreciation of this anacoluthic device to consider a like example in English. Speaking of a group of sailors, one of whom has introduced a subject of general interest, Kipling says:

"There were the makings of an hour-long discussion of the sort fishermen love, had not Dan struck up this cheerful rhyme:" (Verses follow.)⁶

What reader of this sentence is conscious of a missing clause "(and such a discussion would have followed), had not Dan," etc.? There is a slight "jolt" with anacoluthic effect, but that is all. Note how little the situation would have been changed, had Kipling said "*but* Dan" instead of "*had not* Dan."⁷

A reverse decision is indicated in the case of combinations like the following:

Cicero, in *Verr.* ii. 2. 26: *Veniat nunc, experiatur; tecto recipiet nemo.*

In a recent review, J. B. Hofmann holds that the term "ellipsis" has no proper application in such connections, and, in criticism of the present writer's view, he says:

"In diesen Fällen erkennt er stets eine Ellipse, z. B. *impetum faciat; digne accipietur* entspreche einem Volltypus

⁶ *Captains Courageous*, Chap. iv.

⁷ For a fuller discussion of sentences of this type, see "Subjunctive Conditions in Tacitus", *University of California Publications in Classical Philology*, VII, 166 ff.

impetum faciat; si eum (id) faciet, digne accipietur. Dass kann man wohl logisch ergänzen, in Wirklichkeit hat der Sprechende keinerlei Bewusstsein davon, dass etwas fehlt: die volkstümliche und überhaupt die affektiv erregte Sprache liebt solche Gedankensprünge."⁸

From the point of view of what has been said above of the nature of ellipsis, the wording of this citation is highly infelicitous; and the reference to colloquial usage touches a point that invites further comment.

Even the uneducated *feel* distinctions where they do not consciously analyze. One of the earliest recollections of the present writer (at age three, perhaps) is of learning a song, the refrain of which began "I'll away, I'll away." Not recognizing the abbreviation and misled by the context, the learner conceived the expression to be an exhortation to rowers, in the general sense "Pull away, pull away." His untutored mind was far advanced in grappling with fundamental distinctions conveyed in speech, though it was not until years later that he learned to describe them in the abstract terms of grammar.

So, in the case of a sentence like *impetum faciat; digne accipietur*, even the uncritical must feel *digne accipietur* as an apodosis, if they are to grasp the speaker's meaning. This settles at once the question of ellipsis. For it is only in relation to a condition that any expression can be felt as an apodosis; and since *impetum faciat* is a challenging exhortation (hence *not* a condition), it follows that an unexpressed condition is an essential link in the train of thought suggested by the sentence here under discussion.

These considerations have an important bearing upon generally accepted theory as to the history which lies back of the use of the subjunctive mood in the *si*-clauses of Latin conditional sentences, namely, that such clauses are evolved out of the first member of combinations of the kind just discussed; e. g.

Veniat nunc, experiatur: tecto recipiet nemo.

Since, however (as pointed out above), the first member of these combinations is a challenging exhortation and the other an apodosis with implied condition, the current theory of evolution certainly leaves much to be explained.

⁸ *Gnomon*, 5. Band, Heft 11 (November, 1929), 594.

At the very start, it is by no means obvious how a hortatory expression could serve as the "origin" of a conditional clause; and it adds to the difficulty when this hortatory expression stands in juxtaposition with an apodosis that implies its own condition.

This situation will be even plainer, perhaps, if a passage is considered in which the first element (corresponding to *veniat nunc, experiatur*) is of such a character that it could not possibly be regarded as the "origin" of a conditional clause; e. g.

Cicero, *p. Sulla* 71: *Tantum a vobis peto, ut taciti de omnibus quos coniurasse cognitum est cogitetis: intellegitis unum quemque eorum prius ab sua vita quam vestra suspicione esse damnatum.*

Here *peto ut cogitetis* has not the slightest potentiality of conditional evolution; and *intellegitis* is valid only as an apodosis implying its proper condition; e. g. *si ita facietis*.⁹

Current theorizing on this subject doubtless has been influenced by the old conception of a Grundbegriff for each mood, and the consequent feeling that the subjunctive in *si*-clauses needs justification from that point of view.

If the question could be taken up anew and without prejudice, it would probably be accepted as a general principle that a hypotactic construction normally grows out of a parataxis in which there is a like relation of phrases, but without subordinating conjunction, e. g.

I called John into the house: it was raining.

In this paratactic statement the relation of the two items is obvious, and the advance to hypotaxis merely makes this relation explicit:

⁹ The full form is illustrated in a sentence of strikingly similar purport:

Plautus, *M. G.* 1364 ff.:

Cogitato identidem, tibi quam fidelis fuerim;

Si id facies, tum demum scibus tibi qui bonus sit, qui malus.

In a familiar passage Cicero uses the short form, and then (with the effect of an afterthought) subjoins the missing condition:

in Cat. i. 23: recta perge in exsilium: vix feram sermones hominum, si id feceris.

It rather adds to the interest of this illustration that some of the MSS. do not show the appended condition. Compare here *p. Sest. 17.*

I called John into the house *because* it was raining.

On this same principle, in trying to imagine the paratactic construction out of which the Latin hypotactic conditional sentence developed, we should naturally assume two clauses side by side, one a condition, the other an apodosis, but with no subordinating conjunction. Examples of this sort are by no means lacking in extant Latin:

Plautus, *Pseud.* 863:

Si iste ibit, ito; stabit, astato simul.

Cicero, in *Verr.* ii. 5. 168: *Adservasses hominem . . . , dum Panhormo Raecius veniret. Cognosceret hominem, aliquid de summo supplicio remitteres; si ignoraret, tum . . . hoc iuris in omnis constitueres, ut. . .*

These passages are specially satisfactory because the paratactic conditions *stabit* and *cognosceret hominem* are shown in exact balance with the hypotactic forms *si iste ibit* and *si ignoraret*.

Here is just the kind of parataxis out of which hypotactic conditional speaking might be expected naturally to grow. If we are to theorize at all on the subject, why should not this line of natural development be assumed?

As to the prevalent tacit assumption that the subjunctive mood is an interloper in conditional clauses, and that some special machinery must be devised to explain its presence there, two or three considerations should be noted:

Even on the basis of the antiquated and superannuated assumption that the indicative is the "mood of fact" or the "mood of the real", while the subjunctive is the "mood of the fancied or the supposed", which mood of the two would more readily find a logical place in conditional clauses, where, in the nature of things, the reference is to "the supposed" rather than to "the real"?

Another point of importance is the fact that the evolution of Latin hypotactic speaking came by way of spoken rather than of written forms, and that the former have elements of definition that are lost when the words are reduced to writing. Thus the form *veniat*, pronounced in one way, expresses a command; differently intoned, it gives permission; or, with another inflection of the voice, it may express a conditional idea. The reader can test this for himself by pronouncing the word in the ways required to convey these meanings.

The applications of *veniat* just noted are separate and coördinate, and there is no question of "deriving" one from another. The whole burden of proof would lie with anyone who should try to so relate them.

Finally, the modal facts of Early Latin are significant in this connection. Since our own acquaintance with Latin begins with well ordered paradigms, it requires a distinct effort to divest the mind of this influence and to frankly envisage a situation in which the verbs of the language had not yet been formally confined in these shackles.

In many instances we must know "to what conjugation a verb belongs" before we can classify a given form as "indicative" or "subjunctive." At a time when, for example, *lavat* and *lavit* were used interchangeably, what must have been an early Roman's reaction to *levet*? Surely it would have no such definite place in his mind as it does in ours.

Indeed it is well within the limits of possibility that, in the period before Plautus, many verbal forms which later standardization fixed in a narrower sphere (such as those in *-at* and *-et*) were used with great freedom and looseness so far as "mood" was concerned.

If this was the state of affairs when conditional speaking was in the paratactic stage, the presence of the subjunctive mood in hypotactic conditions of a later period surely calls for no labored explanation.

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LUCRETIIUS AND THOMSON'S AUTUMNAL FOGS.

[Thomson's description of autumnal fogs represents his generalized observation permeated with Lucretian theory and principle, and often expressed in language derived from Lucretius, or from Lucretius as adapted by Milton.]

The general statement that Thomson's *Seasons* contains passages suggested by Lucretius is a commonplace of editors and commentators. Yet the most definite citation of influence is Otto Zippel's list of line-references in *Models and Sources*, the dissertation accompanying his *Critical Edition of Seasons* (Berlin, 1908, pp. xxxii-xl). Among them, Zippel includes lines 726-74 from the early (1730) edition of *Autumn* in connection with Lucretius 5. 261-72 and 6. 608-38. This is the passage in which Thomson first states the usual scientific theory that moisture gathered from mists and rains into mountain-cisterns feeds the rivers. In 17 lines (deleted in the 1744 text), he then questions this theory, and declares it insufficient. The subsequent statement of Lucretian doctrine (*Autumn* 743-56 in the text of 1746) that water, freshening as it seeps back under the land toward the sources of rivers, thence returns over the earth, remains substantially the same in all texts. In 1730, Thomson had followed this exposition of Lucretius by 11 lines of his acceptance. These he deleted in 1744, a time at which he had reversed his opinion, and wished rather to refute Lucretius in favor of the original explanation. It is these lines, then, of the early text, which Zippel noticed as bearing the imprint of Lucretius. The first passage (5. 261-72) in Lucretius is his proof that water is mortal, that it is constantly oozing forth, constantly evaporating, and seeping underground back to its springs; the second (6. 608-38) is a discussion why the sea does not increase—the answer again being evaporation, and the oozing back through the porous earth of moisture to its fountain-heads.

'And thus some sages deep-exploring teach' had been Thomson's acknowledgment of Lucretius when he first wrote *Autumn*. This became 'Some sages say' (line 743) in 1744, when the theory of Lucretius was to be refuted; and so it remained. In lines 756-72, which Thomson then added, he makes his argumentative denial of the Lucretian theory just explained. As

G. C. Macaulay has noted, these lines are a happy imitation of the style of Lucretius.¹ Thomson added also lines 773-835, which offer, after an invocation to the 'pervading genius' given to man to explain the hidden structure of the universe, a theory at length satisfactory to Thomson.

But the nucleus of Thomson's *Seasons*, if we may trust David Mallet's 'idea' of the Poem was a 'description of the grand works of Nature raised and animated by moral and sublime reflections.'² In his *Argument*, Thomson himself witnesses to this aim, which he thus summarizes: *A description of fogs, frequent in the latter part of Autumn: whence a digression, inquiring into the rise of fountains and rivers.* This initial observation of seasonal fog, we have represented in lines 707-35, a passage which appeared in 1730, and was not expanded in 1744. Thomson, then, set out, in the orderly course of a descriptive poem, to record his generalized observations of certain seasonal phenomena. But even in this descriptive section, Lucretius is represented. Granted Thomson's own powers of seeing and reflecting, yet his grounding in the Latin language at the University of Edinburgh now also bore fruit in having made him sensitive to the basic meanings of Latin roots, and his thorough acquaintance with *De Rerum Natura* furnished his expression with appropriate epithets and a picturesque quality. Not, then, the Lucretius of one or two passages, but Lucretius the cosmic philosopher and poet, is basic to Thomson's achievement in *Autumn* 707-35. Although Thomson makes particular use of the passages regarding water, he also shows himself conscious of passages demonstrating the same principle in other phenomena. In an early undated letter of Mallet to Thomson, we read: 'As you write in your former agreeable letter, you every day converse with the sages and the heroes of antiquity. You think like them, too.'³ The lines under discussion seem to show Lucretian thought and diction almost constantly lurking in Thomson's mind. The Lucretian search for causes, for a final explanation of the uni-

¹ Macaulay, G. C., *James Thomson*, p. 147 (English Men of Letters, London, 1908).

² *Miscellanies of the Philobiblion Society*, 4. 30, James Thomson and David Mallet, Letter No. 5, August 2, 1726 (London, 1857-8).

³ *Miscellanies* etc., as above, 4. 21-2, Letter No. 4, undated (London, 1857-8).

verse, finds its analogue in Thomson's increasingly persistent questioning. He reflects something of the thoroughness of Lucretius' search for truth; for the initial description of 'general fog unbounded o'er the world' leads him back to the origin of rivers, and thence to the structure of the universe, until his explanation finally rests in the 'full-adjusted harmony of things.'

Lucretius postulates that the quantity of matter is constant, and that things are perpetually being brought to birth, and as perpetually perishing. He must ransack the universe for illustrative proof of this hypothesis. Or, working conversely, he must assign reasons for earthquakes, eruptions, floods, and eclipses. Or, again, he must confute those philosophers who interpret things and their causes differently from him. These various reasonings on the same basic elements necessitate repetition; or often, use of the same occurrence for different illustrative purposes; or, again, use of the same language to show a common principle in different elements. The very structure of the poem of Lucretius might impress upon Thomson substantially similar passages, and make him conscious of each variation, or each adaptation to a special end. Add to this the ever redundant style of Lucretius, and we have some understanding how Lucretius could so permeate Thomson's thought.

Let us examine first *Autumn* 707-35, lines which contain the major part of Thomson's actual observation, so that we may determine whether this passage depends in any measure on literary memory. What Thomson actually sees in his autumnal walks is the pressing down of mists, their increase, and their rolling about the hills; he sees the mountains disappear, the woods vanish, the landscape become dimmed and indistinct. He observes the effect of fogs 'in the height of noon,' and at the approach of night. But this leaves much in the passage unexplained. His concept of the mountain 'horrid, vast, sublime,' 'Who pours a sweep of rivers from his sides,' does not result from Thomson's rambles about the hilly country. The epithets, which are rather rhetorical, are all Latin derivatives. The downrush of waters cannot fail to recall the four-fold use of similar statements in Lucretius. 'Magnus decursus aquarum / undique,' (5. 263-4) writes Lucretius, in his proof that moisture is constant in the earth. Again, 'tantus decursus aquarum / omnia quo veniant ex omni flumina parte' (6. 609-10). Men wonder,

he says, that such a flood of waters does not increase the size of the sea. 'Flumine abundanti . . . montibus ex altis magnus decursus aquai' (1. 282-3); he compares the destructive power of water with that of winds. 'Montibus e magnis decursus aquai . . . quibus e scibant umori' fluenta / lubrica proluvie larga lavere umida saxa' (5. 946-50). Lucretius explains whence men and beasts slake their thirst.

In themselves, the 'exhalations' from the earth need not necessarily lead back to Lucretius, although -hal- is the regular root, used in both noun and verb, with and without ex- or red-, when he discusses mist rising from the whole earth, or from lakes and rivers. But Lucretius is not the only ancient source of this theory, nor need Thomson have gone further than Milton. The 'Mists and Exhalations' of *Paradise Lost* 5. 185 are to rise 'From hill or steaming lake,' and add their sun-touched glory to the Creator's praise. In *Paradise Lost* 5. 425, humid exhalations from lower Orbs feed the Sun. Lucretius, the probable source of both passages of Milton, is less transmuted, less adapted to a special end, in Thomson than in Milton. Four passages may be cited:

1. L. 5. 251-5. Lucretius observes the same fundamental principle in the action of earth as in that of water, and expresses it in the same terms:

principio pars terrai nonnulla, perusta
solibus assiduis, multa pulsata pedum vi,
pulveris exhalat nebulam nubisque volantis
quas validi toto dispergunt aere venti.

2. L. 5. 463-4:

exhalantque lacus nebulam fluviiue perennes,
ipsaque ut interdum tellus fumare videtur;

3. L. 6. 523:

terraque cum fumans umorem tota redhalat.

4. L. 6. 476-8:

praeterea fluviis ex omnibus et simul ipsa
surgere de terra nebulas aestumque videmus,
quae velut halitus hinc ita sursum expressa feruntur.

Of these four, the two from Book 6 I have excerpted from a sec-

tion of some seventy lines (451-523) in which Lucretius discusses the formation of clouds and the cause of rain. They may very probably have a fuller bearing on Thomson's passage. In them (6. 511) the root of 'copious' appears—*ipsa/copia nimborum*. They furnish two instances of the root 'condensed': one, *condensa* (6. 466), where the clouds, gathered in a throng at the peaks of the mountains, are 'thickened' or 'condensed'; the other, *quasi densendo* (6. 482), of the vapor which 'presses down' (*urget*), from the ether, to increase the clouds. This 'thickening' or 'condensing' may be represented in Thomson not only in his 'condensed' of line 707, but also in line 730, where, 'mingling thick,' 'confusion covers all.' And the *urget* of line 481 is quite exactly represented in the pressing of Light through Chaos (line 733). Although Thomson's simile,

As when of old (so sung the Hebrew bard)
 Light, uncollected, through the Chaos urged
 Its infant way, nor order yet had drawn
 His lovely train from out the dubious gloom,

seems Miltonic in kind, yet Milton used 'urge' in this physical sense but once:

But torture without end
 Still urges. (P. L. 1. 68.)

Lucretius uses it of clouds in still another passage (6. 190-2):

aut ubi per magnos montis cumulata videbis
 insuper esse aliis alia atque urgere superne.

Again, 'declining year' suggests Milton's declining sun or day rather than the technical use of *declino* by Lucretius for the swerve of the atoms. And 'the middle sky,' at least in diction, may suggest Milton's several uses of mid heaven, mid sky, middle air—particularly his 'Up to the middle region of thick air' (P. R. 2. 117). (Did Lucretius, however, suggest this: *media ab regione diei* (6. 723) and *ad mediam regionem diei* (6. 732)?) Thomson doubtless remembered these. But the implication of such a region is present in this same passage of Lucretius—a region where the ether presses down from above, where vapors rise from the earth, and where, thickening (*quasi densendo*), they become clouds beneath the heaven (6. 476-82).

These lines on the forming of clouds in Lucretius include also

an explanation of the 'unseen' in Thomson. Lucretius describes the upward movement of vapor, when clouds first form *tenuia*—'ante videre oculi quam possint' (6. 463)—and then, gathered in greater mass, and thickened, they can be seen—'hic demum fit uti turba maiore coorta / et condensa queant apparere' (6. 465-6). In other words, Thomson has compressed into four lines of apparently descriptive poetry, both the doubling fogs which belonged to the development of his theme, and the theory which Lucretius postulated regarding clouds in their relation to mountains; he has done both not without reference to the diction of Lucretius. Other evidence is not lacking that the cloud-theory was in Thomson's mind as he wrote and rewrote this section of *Autumn*. His rhetorical plea in lines 781-806 that all mighty peaks and ranges of man's world reveal to him their hidden structure includes at least two arresting phrases. One (line 794-5) is descriptive, more as Lucretius describes than as Thomson does:

And all the dreadful mountains *wrapt in storm*
Whence wide Siberia draws her lonely floods.

The other (line 801) is an epithet, which, if explained, would involve all the reasoning of Lucretius on the formation of clouds:

Of Abyssinia's *cloud-compelling* cliffs.

To Thomson's 'doubling fogs' and 'gathering vapor,' the redundancy of Lucretius may well have contributed. He is explaining the origin of clouds (6. 456-7):

inde ea *comprendunt inter se conque gregantur*
et *coniungendo crescunt* ventisque feruntur.

He has just used *concrescunt* of the gathering of clouds (6. 465); a few lines later (6. 465), he speaks of clouds as *turba maiore coorta*—'gathered in a greater throng'; and still further on (6. 480) the mists (*nebulae*) and vapor (*aestus*) 'little by little as they meet'—*paulatim conveniundo*—build up the clouds on high. Is it this *paulatim* which appears in Thomson as 'The huge dusk *gradual* swallows up the plain'? And do the *tenebrae* which cover up seas and land—*coperiant maria ac terras* (6. 491)—bear any relation to that huge dusk? Or did Thomson recall the line in which Lucretius (5. 650) introduced the possible causes of night:

nox obruit ingenti caligine terras?

In both poets, the same generalizing quality is noticeable. The *maria ac terras*, the *terras*, both just cited in Lucretius, the *fluviis ex omnibus* of 6. 476, have their counterpart in the 'dim-seen river,' 'the plain,' 'o'er the world,' and confusion covers 'all,' of Thomson.

The word 'roll,' common enough in Milton, and here twice used by Thomson—'Roll the doubling fogs around the hill,' and 'the river seems / Sullen and slow, to roll the misty wave'—may represent two Latin words. *Volvo* is a verb picturesque in its usage by Lucretius. One is reminded of Etna 'rolling forth its smoke in a thick cloud' (6. 691: *crassa volvit caligine fumum*), of that characterization of autumn as the season in which the last heat rolls on mingled with the first cold, (6. 371-2: *et calor extremus primo cum frigore mixtus / volvitur*), of the springs which roll forth coldness (2. 590: *volventes frigora fontes*). But the more interesting root is *aestus*, here translated from the Latin by Bailey as *vapor*—both that rising from rivers and carried upward (6. 477), and that pressing down from the starry ether to join the clouds (6. 481)—the root meaning being a billowy motion, as of the tide of the sea, and its figure carried out by Thomson in *wave*—'to roll the misty wave.' In fact, the whole phrase is virtually a translation by Thomson of *nebulas aestumque*, as if it were the figure of hendiadys (L. 6. 477).

Thus far, Thomson has proceeded logically, noting the gradual blotting out of the features of the landscape, one after another, as the fog becomes general. This systematic procedure he interrupts for seven lines (721-7), in order to insert two special phenomena, the appearance of the sun, and of objects seen indistinctly, yet with the illusion of increased size. The noon-day sun of Thomson presents a particular aspect which we do not expect to find recorded in Lucretius, interested as he is rather in the causes of heat and light, and of such special interruption of every-day occurrences as eclipses. Of the Latin derivatives, *orb* of course regularly denotes sun or moon; *refrango*, Lucretius uses of the appearance of an oar in water, not of the sun's rays; but *opprimo*, we do find in the eclipse passage, where the earth holds the sun 'oppressed' (*oppressum solem super ipsa tenere*, 5. 765). *Languidus* indeed describes the sun weary with the

day's shining (5. 652), and *labefactos* (5. 653) characterizes his fires, made weak by much air. This is not close similarity; but the dimming of vision by 'much air' attracts one's attention, since Thomson next discusses that very thing. Except for 'the height of noon,' the diction is not any more reminiscent of Milton. 'He frights the nations,' however, Thomson did not observe. Had he, after all, recalled Milton's simile (P. L. 1. 594-9), describing Satan just fallen, the excess of glory obscured:

as when the sun new-risen
Looks through the horizontal misty air
Shorn of his beams, or, from behind the moon,
In dim eclipse, disastrous twilight sheds
On half the nations, and with fear of change
Perplexes monarchs?

And did both have memory of the Italian tribes fearing unusual manifestations of nature, such as the eruption of Etna (L. 6. 641-6)?

For the indistinctness of vision, and the apparent increase in the size of objects, Thomson is partly observing, partly recalling Lucretius, and his discussions of sound and vision when they come to a person 'through much air'—*aera per multum*. For this, *confundo* is the root regularly used, here appearing in 'A formless grey confusion.' Concerning vision, in the very section on the heavenly bodies, Lucretius explains (5. 579-81) that all things seen through much air grow confused in shape before their outline is lessened:

nam prius omnia, quae longe semota tuemur
aera per multum, specie confusa videntur
quam minui flum.

And to certain regions in which the air is thicker, 'crassior est . . . aer' (5. 696), the rays of the sun cannot easily pierce. This is the situation which Thomson here describes: nearby objects appearing gigantic because their outlines have become, from being seen through turbid air, as indistinct as if they were distant. 'Turbid,' indeed, is a root in frequent use by Lucretius, the adjective *turbidus* being applied to fire, tempest, the power of air, or a river swollen with rain. Here in Thomson it represents the pith of the whole illusion of size. 'Turbid,' an epithet abstracted from its common application to the three elements

having flux, 'liquid bodies,' as distinct from the element of earth, impenetrable to vision or to direct sound—'turbid' epitomizes both observation and reasoning toward a cause. Lucretius is more thorough in his explanation of the principle here involved when he discusses sound. An utterance starting at no great distance from us reaches our ears with the shaping and the form given it by the lips of the speaker still preserved. But if the utterance passes *through much air* to reach us, it becomes disordered—*conturbari* (4. 559), and the words confused—*confundi* (4. 558). If it passes through winding instead of through straight pores, it is dulled, and enters the ear *confusa* (4. 613). This is the circumstance of Thomson's vision: turbid air is stormy; it presents an approximation to winding pores, and so renders objects 'indistinct,' 'formless,' yet large by reason of their proximity.

Thus, in that portion of the passage in which is concentrated the original 'idea,' a description of the grand works of nature, it is difficult to find any substantial part dependent on observation alone. Thomson has here presented something far different from purely descriptive poetry. About a nucleus true to the external features of the autumnal landscape which he so well knew, he has built the scientific reasonings of a mind stored with literary memories and with literary solution of the nature of things.

The changes which the lines underwent between their first form in 1730 and their final form in 1744 are in no case those of fresh embellishment, or of superimposing on them or fusing with them ideas gathered in the intervening years. The passage is not proceeding toward further Latinization. Thomson has somewhat improved the melody; he has increased the alliteration. In these latter cases, the new alliterative word is one effective in Milton. Thus 'wreathed close around' becomes 'wreathed dun around,' 'dun' (cf. 'dun air sublime' of P. L. 3. 72) preceding 'deeper circles.' Thus 'dark and dreary,' a Miltonic phrase, supplants 'dark and total.' 'Dreary' adds to the line not only alliteration, but the emotional tone with which Thomson imbues the passage. He achieves this again in

the dim-seen river seems,
Sullen and slow to roll the misty wave,

and in

wildered, o'er the waste
The shepherd stalks gigantic.

There is somewhat more rigor in the 1744 text. 'Thence expanding far' describes the procedure of fog that obliterates first mountain and then plain more exactly than 'nor alone immersed.'

The at first unapparent economy of Thomson is perhaps the most remarkable quality which he has here achieved. It is an economy resulting not from scant material or idea, but from extreme compression, from fusing almost inseparably the harvest of the eye and of the mind. Thus the 'descent' of the fog which Thomson sees, precedes in the same line its origin, as predecessors recount it, exhalations from the earth. How much of Lucretius has gone into the single word 'unseen' has already been discussed. The 'turbid air' does not represent vision alone. Thomson's observations here proved consonant with Lucretius' theories. If the Latinized diction of Thomson seems at times over-ponderous, it is yet not strange. For it reflects that language of Lucretius suitable in him to his largeness of conception: the principle which controls bodies of vapor in a seasonal fog was sufficient also to account for the birth of the world. Is Thomson's epic simile, then, the inevitable likeness which his mind must see? Has he, like Milton, and Lucretius, and the Hebrew bard, discerned in the particular the universal order of creation?

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MICHAEL WALPOLE, TRANSLATOR OF BOETHIUS'
DE CONSOLATIONE

[Attribution of the authorship of the 1609 "I. T." translation to Michael Walpole, S.J., against the claims put forth in behalf of John Thorie or John Thorpe.]

When H. F. Stewart and E. K. Rand in 1918 edited Boethius for the Loeb Classical Library, they adopted with slight revisions a translation of the *De Consolatione Philosophiae* published in 1609.¹ By so doing they raised the authorship of this fine Jacobean version to a matter of some literary importance. There is no name on the title-page, but the dedication to the Dowager Countess of Dorset (almost certainly the widow of Thomas Sackville, first Earl of Dorset) is signed "I. T." The leading libraries of England and America have catalogued the book as translated simply by "I. T.,"² and even such bibliographers as Hazlitt and Lowndes have listed the author only by these initials.³ Messrs. Stewart and Rand, however, suggested John Thorie, a Fleming born in London in 1568, as the translator, but they admitted that his known translations were all from the Spanish.⁴ In 1921 Professor G. Bayley Dolson proposed a second hypothesis—that the author was John Thorpe, the architect employed by Thomas Sackville in 1603-05 for additions and alterations at Knole.⁵ His reasons were two: that Henry Peacham called Thorpe "an excellent Geometrician and Surveieur," and a man "not onely learned and ingenuous

¹ *FIVE BOOKES, OF PHILOSOPHICALL COMFORT, FVLL OF Christian consolation, written a 1000. yeeres since. By Anitius, Manlius, Torquatus, Seuerinus, BOETIVS; a Christian Consul of ROME. Newly Translated out of Latine, together with Marginall Notes, explaining the obscurest places. LONDON . . . 1609.* Introduction, 7 pages, text, 144 pages (actually leaves, since only the right-hand pages are numbered), 8vo.

² British Museum, Bodleian, Cambridge, London, Congress, Harvard, Newberry.

³ Hazlitt, *Notes and collections*, London, 1876, p. 42-3; Lowndes, *Bibliographer's manual*, revised by Bohn, i. 229.

⁴ Introduction, p. xiv.

⁵ "I. T.—Translator of Boethius," *American Journal of Philology*, 42 (1921), p. 266.

himself, but a furtherer and favorer of all excellency whatsoever";⁶ and that Thorpe delighted "in playing with his initials," once designing a house for himself "the ground-plan of which forms the letters I T".⁷ In the second impression of the Loeb Library *Boethius*, 1926, Messrs. Stewart and Rand referred to Dolson's theory as one of "greater probability" than their own of John Torie.⁸ There is, however, nothing to suggest that Thorpe ever wrote a book, or had any literary or classical training, which makes it difficult to give this theory credence.

Since, therefore, no satisfactory identification of the translator has been made, it seems well to point out that a Jesuit Father, Michael Walpole, published in 1609 at London a translation of the *De Consolatione*. The sources of this important information are to be found in a manuscript and two Jesuit bibliographies, all of the seventeenth century. Among the "Promiscuous Papers" of the English College at Rome, Henry Foley found a catalogue of the "English writers of the Society of Jesus," dated 1632.⁹ This was a more or less official list prepared for the forthcoming Jesuit Bibliography.¹⁰ Moreover, Walpole was an important member of the Society, having been Superior of the English Mission, and was either alive or had but recently died when the manuscript was written. Its information, therefore, bears the stamp of reliability.¹¹ Here, under the account of Michael Walpole, is the entry: "Also from the Latin, of the books of Boetius upon the Consolation of Philosophy. London, 1609. In 8vo."¹² In 1643, Alegambe published a bibliography of Jesuit writers which contains, again under the

⁶ Peacham's *Gentleman's Exercise* (ed. 1634), p. 162. Both in Professor Dolson's article and in the *Dictionary of National Biography*, lvi, 320, the page number is given incorrectly, and Professor Dolson has modernized the spelling.

⁷ *DNB*, lvi, 319.

⁸ Introduction, p. xiv.

⁹ Henry Foley, *Records of the English Province of the Society of Jesus*, London, 1877-83, vi, 521.

¹⁰ Edited by Alegambe, 1643. I owe this description to Father C. A. Newdigate, S. J.

¹¹ Walpole was known to be alive in August, 1624.—*DNB*, lix, 176.

¹² *Records*, vi, 528. Foley has translated the original Latin.

name Michael Walpole, the following statement: "Transtulit praeterea ex latino Anglicè: Boetii libros de Consolatione Philosophiae. Londini, MDCIX, in 8."¹³ The identical entry also appears in Sotwell's bibliography of 1676.¹⁴ Basing their information upon these sources or upon one another, many modern authorities in discussing Michael Walpole likewise credit him with the translation.¹⁵

It is obvious that we have here either one and the same translation, or else two different translations—one by Walpole, and another whose dedication is signed "I. T." and which was adopted by Messrs. Stewart and Rand. Now, it is very unlikely that we are dealing with two translations. The seventeenth century sources given above tell us that Walpole's translation was published in *London, in 1609, in octavo*, and Sotwell adds, "*tacito suo nomine*." The translation used for the Loeb Library was also published in *London, in 1609, in octavo, without the author's name* (simply with initials at the end of the dedication). It seems hardly probable that the description of two independent translations of the *De Consolatione* should tally so closely. Moreover, inasmuch as no translation (barring Chaucer's in the editions of his works) had been published since 1561 and the next was not to appear until 1664, Boethius was scarcely popular enough to support two translations within one year. If, on the other hand, we assume for the moment

¹³ *Bibliotheca scriptorum Societatis Iesv, post excusum anno M. DC. VIII. catalogum R. P. Petri Ribadeneirae. . . . Nunc hoc nouo apparatu librorum ad annum reparatae salutis M. DC. XLII. editorum concinnata . . . a Philippo Alegambe . . . Antverpiae . . . 1643*, p. 346. I owe this transcription to the kindness of Father L. Hicks, S. J.

¹⁴ *Bibliotheca Scriptorum Societatis Jesu, opus inchoatum a R. P. P. Ribadeneira . . . anno salutis 1602. continuatum a R. P. P. Alegambe usque ad annum 1642. recognitum, et productum ad annum Jubilaei 1675 a N. Sotuello. . . . Romae, 1676*, p. 618.

¹⁵ Some of the modern authorities are: Charles Dodd, *Church history of England*, Brussels, 1737-42, ii, 418; George Oliver, *Collections towards illustrating the biography of . . . members of the Society of Jesus*, London, 1845, p. 214; Augustin and Alois de Backer, *Bibliothèque des écrivains de la Compagnie de Jésus*, Liège, 1853-61, v, 770; Carlos Sommervogel, *Dictionnaire des ouvrages anonymes et pseudonymes publiés par les religieux de la Compagnie de Jésus*, Paris, 1884, i, 320; DNB, article on Michael Walpole by Augustus Jessopp, lix, 176.

two translations, it seems very strange that all library catalogues and all bibliographies, Jesuit and otherwise, have apparently described the same book,—namely, the one whose dedication is signed “I. T.”¹⁶ What, then, has become of Walpole’s book and why has no one ever described it, or ever mentioned two translations in the year 1609? It must be granted that the evidence is not positive, but it strongly indicates that there was but one translation and that the translator “I. T.” was none other than Michael Walpole.

So far as I can see, there are but two possible questions which remain to be answered. First, how can we account for Walpole’s use of the initials “I. T.”? Jesuit writers, of course, employed many pseudonyms, and Walpole is known to have used at least four.¹⁷ Father Sotwell in the bibliography cited above expressly says of him: “Scripsit Anglicè tacito suo nomine.” While none of his four known pseudonyms accounts for the initials “I. T.”, it is interesting to note that two of Walpole’s brothers (also Jesuits), Henry and Richard, assumed the aliases of Henry and Richard Thorne respectively.¹⁸ This suggests that the “T” of “I. T.” probably stands for Thorne.¹⁹ The “I”, however, remains unexplained, unless it possibly represents Jesuit.

In the second place, it might be objected that a Jesuit priest would not have dedicated a book to the widow of Queen Elizabeth’s Lord High Treasurer. To this it may be answered that the Sackville family had definite Catholic and even Jesuit sym-

¹⁶ All the nineteenth century bibliographies give the full title, and some add the number of pages.

¹⁷ “Michael Christopherson” (his next older brother was named Christopher), “M. C. P.” (Michael Christopherson Priest), “W. M.” (his own initials reversed), and “Martinus Becanus” (used only in letters)—Pollard and Redgrave, *Short-title catalogue*, London, 1926, p. 583; Foley, *Records*, ii, 267, 269; *British Museum catalogue* under Pedro de Ribadeneira.

¹⁸ Foley, *Records*, vii, second part, p. 948. I owe this information to the kindness of Father C. A. Newdigate, S. J. Through the courtesy of Father Timothy Barrett, S. J., Father Edward King, S. J., also supplied the same information.

¹⁹ Some additional weight for this hypothesis may be found in Walpole’s use of another brother’s name, Christopher, in pseudonyms pointed out above.

pathies. It is known that Thomas Sackville in 1564 had several interviews with the Pope at Rome and "seems to have made some offers of interceding with Elizabeth on the religious question."²⁰ At any rate the Pope gave him a commission for Queen Elizabeth urging her to return to the faith.²¹ Although Sackville never presented this commission (his father laid the matter before the Queen and was severely rebuffed), the drafts of two letters sent him from the Vatican in that year imply that at least from the Pope's point of view, Sackville was not only a Catholic, but a willing servant of the Church.²² Ten years later he was on very friendly terms with Father Robert Parsons, founder of the English Jesuits, and "loved him exceedingly well, and kept him some two or three months with him."²³ In 1603 some Jesuits were seized in London and brought before Sackville for examination, who, says one of them, "contrary to all hope kindly dismissed us."²⁴ He is also reported to have given 70,000 florins for the founding of a Jesuit college at Louvain.²⁵ Finally there is the story of his conversion to the Church by Father Blount just before his death.²⁶

Really more important, however, in connection with the present translation are the similar Catholic leanings of the Dowager Countess of Dorset. Her father, Sir John Baker, was Queen Mary's Chancellor of the Exchequer. Her brother, Sir Richard Baker, was a friend of Father Robert Parsons, to whose teaching he intrusted his son, Thomas Baker.²⁷

²⁰ John Hungerford Pollen in *Catholic Record Society Publications*, ii, 1. Sackville's Roman visit is there discussed thoroughly. Pollen is also the source of the following statements.

²¹ A note of the Commission by Pargalia, Abbot of S. Solutore, is printed, *Ibid.*, ii, 5.

²² *Cath. Rec. Soc. Pubs.*, ii, 7-9.

²³ *Cath. Rec. Soc. Pubs.*, ii, 23, 25, and E. L. Taunton, *History of the Jesuits in England, 1580-1773*, Philadelphia and London, 1901, p. 24, where the remark quoted is attributed to Parsons' brother.

²⁴ Foley, *Records*, i. 195.

²⁵ *Cath. Rec. Soc. Pubs.*, x, 201, from the Third Douay Diary.

²⁶ John Morris, *Troubles of our Catholic forefathers*, first series, London, 1872, p. 197, and accepted by J. H. Pollen, *Cath. Rec. Soc. Pubs.*, ii. 2.

²⁷ *Cath. Rec. Soc. Pubs.*, ii, 23, from the MS. notes written by Parsons for his autobiography.

Moreover, a Puritan Scotchman of Oxford named Darnell wrote a letter to one of his friends not only taxing the Lord Treasurer (Sackville) with Papistry, but adding that "my lady Buckhurst [Sackville's wife] nursed Papistry in her lap, and that she heard Mass with my Lord Montacute in Salisbury Court,"—which charges he later avowed before the Lords of the Council on February 14, 1602.²⁸ In addition, among their descendants, as J. H. Pollen points out, "Catholicism survived for a long time,"²⁹ and if space allowed, much evidence could be cited to support this. Thus it appears not only possible but quite natural for a Jesuit priest to dedicate his translation of the *De Consolatione* to the Dowager Countess of Dorset, and Walpole's claim to the authorship seems to remain well founded.

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²⁸ Foley, *Records*, i, 18-9. The quotation is from a letter of Father Blount's describing Darnell's appearance before the Star Chamber.

²⁹ *Cath. Rec. Soc. Pubs.*, ii, 2.

APPROPRIATIONS FOR THE GAMES AT ROME IN 51 A. D.

On the fragments of the *fasti Antiates*, of the year 51 A. D., is preserved a record of some of the public games of that year. For three of the greater festivals, the *ludi Apollinares*, *Romani* and *plebei*, we are informed as to the days devoted to the theater and to the circus, and figures are given as to the expense.¹ It is presumed that the sums named were the appropriations made from the public treasury, which the praetor in charge was expected to increase from his own purse.²

The amounts vary for the three festivals, being roughly in proportion to their length. Thus for the fourteen days of spectacles in the *ludi Romani* 760,000 sesterces are allowed; for twelve days of the *ludi plebei* HS 600,000; for eight of the *Apollinares* HS 380,000.³ It was evidently the purpose of the state to distribute the funds in proportion to an estimate of the cost of the several games.

But a somewhat larger daily grant is allowed to the festivals on which there were several days in the circus than to the *ludi Apollinares*, with only one day of races. This suggests the possibility of calculating the respective amounts allowed for each day of circus and theater. Thus let

$$\begin{aligned} x &= \text{HS appropriated per day of circus,} \\ y &= \text{HS appropriated per day of theater.} \end{aligned}$$

$$\begin{aligned} \text{Then, for the } ludi \text{ Apollinares } \quad x + 7y &= 380,000 & (1) \\ \text{for } ludi \text{ Romani } \quad 5x + 9y &= 760,000 & (2) \\ \text{for } ludi \text{ plebei } \quad 3x + 9y &= 600,000 & (3) \end{aligned}$$

¹ CIL I², p. 248 f., 300. The regular games (*ludi*) consisted of theater and circus, being sharply distinguished from the extraordinary *munera*, consisting of gladiatorial shows and *venationes*, Cic. *Leg.* 2, 38; Mommsen, *Eph. Ep.* VII, 402 and n. 1; Wissowa, *Religion und Kultus*², 460 and n. 7. In the calendars the days of circuses are regularly distinguished by the entry *in circo* or *circenses*.

² Marquardt, *Staatsverwaltung*, *Handbuch* V, 83 f.; Friedländer in Marquardt, *Handbuch* VI, 468 f.; id. *Sittengeschichte*, II¹⁰, 10.

³ The *epulum Iovis* and *equorum probatio* are omitted from the calculation as not requiring a special subvention from the treasury. Both seem to have been of a ritual rather than a spectacular nature, attached only to the two oldest festivals, the *ludi Romani* and *plebei*.

Any two of these equations may be solved for the value of x and y , disregarding the third, thus giving three different solutions.

Solving (1) and (2),	$x = 73,077$	$y = 43,846$
(1) and (3),	$x = 65,000$	$y = 45,000$
(2) and (3),	$x = 80,000$	$y = 40,000$.

While these results do not show that a uniform daily allowance for circus and theater determined the appropriation, there is something of an approximation to that scheme.

This analysis of the state appropriations is in accord with Friedländer's remark that the *ludi scaenici* were the cheapest of all the spectacles.⁴ To amuse the city populace at the games in question, the state evidently contributed from HS 40,000 to HS 45,000 (\$2,000-\$2,250) per day for stage performances, and from HS 65,000 to HS 80,000 (\$3,250-\$4,000) per day for the chariot races.

How scanty this allowance was may be seen by a comparison with the gifts Nero is said to have made to actors and athletes, totalling for his reign HS 2,200,000,000 (\$110,000,000).⁵ A proposal of the praetor to give Nero a million sesterces for a performance on the stage⁶ was no more than proportionate to the liberality of the Emperor himself. Fortunes were spent in luxurious decorations for the theater, in awnings, cooling arrangements and perfumes to shower on the crowd.⁷ Successful charioteers also received gifts equal to a knight's fortune.⁸ The regular prizes in the chariot races may well have made them more expensive than the theater.

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⁴ *Sittengeschichte* II¹⁰, 112.

⁵ *Plut. Galba* 16, 2; *Suet. Galba* 15, 1; *Tac. Hist.* 1, 20.

⁶ *Suet. Nero* 21, 2.

⁷ *Mart.* 5, 25, 7; Friedländer in Marquardt, *Handbuch* VI, 512 f.

⁸ *Mart.* 5, 25, 9 f.; 10, 74, 5.

HITTITE AND INDO-EUROPEAN NOMINAL PLURAL DECLENSION

The most striking aspect of Hittite declension of nouns is the wide difference in type of inflection between singular and plural. While the latter goes its own way altogether, the former is a system of cases quite analogous to that of the other IE languages, with seven case forms used similarly to IE case forms. Moreover, although the locative, ablative, and instrumental cases are formed with suffixes different from those ordinarily found in other IE languages, the four primarily non-local cases show striking resemblances and identity of origin with those of the latter and the parent language itself. Thus the nom. *tuzzi-š*¹ 'army' has the ending of all IE *i*-stems, and is like Skt. *matī-ḥ* and Gr. *πόλι-ς*. Its genitive *tuzzijaš* is like the Greek *πόλιος* < *ῖος*,² its accusative *tuzzi-n* is like Skt. *matī-m* and Gr. *πόλι-ν*. The neuter *i*-stem *huwasi* 'a certain object of stone' is formed like Lat. *mare*, i. e. is the bare stem, and its dat. *huwasi* is evidently to be compared with Lat. *marī*³ IE *-ai* or *-ei*. In the *o*-declension *antuhša-š* 'man' nom. sing. has the same form as Skt. *vṛka-ḥ* Gr. *λύκο-ς* Lat. *lupu-s*, and the acc. *antuhša-n* again has the ending of Skt. *vṛka-m* Gr. *λύκο-ν* Lat. *lupu-m*. The gen. *antuhšaš* on the other hand is an analogical formation patterned either after the gen. sing. of consonant stems in IE *-os* or is the

¹ The Hittite material is taken from Delaporte, *Éléments de la Grammaire Hittite*. The quoted parallel forms of other IE languages are, with few exceptions, so obvious, that the relation is self-evident. For the most part the comparisons are found already in Hrozný, *Die Sprache der Hethiter*.

² That the Hittite as well as Greek form arose by assimilation of the *i*-declension to words in long *-i*, does not concern us here, where our object is merely to give examples showing the obvious relationship of Hitt. forms with those of other IE languages. See Brugmann-Thumb, *Gr. Gr.*⁴ 214.

³ That here too the genesis of the Hitt. and the compared Lat. form is dubious, and that both of them may be either due to influence of the consonant declension or may come from IE *-ejai* or *-ejei*, does not affect the certainty of the obvious relation of the forms compared. Cf. Brugmann, *Gr. 2. 2. 1.*² 171.

form of the \bar{a} -declension IE $-\bar{a}s$, which in Hittite seems to have been merged with the IE o -stems.⁴ Analogical to the consonant declension is certainly the dat. *antuhši*, with IE $-ai$ or $-ei$ as in Skt. *pad-ē* Lat. *pedi*. In the u -declension Hitt. *genu* 'knee' is the Lat. *genu*, and the gen. *ginuwaš* is formed like Skt. *bhruv-āḥ* (transfer to the \bar{u} -declension in Hittite). The u -adjective *aššu-š* 'good' masc. fem. nom. sing. has the form of Lat. *fructu-s* and Skt. *bāhú-ḥ* Gr. $\pi\eta\chi\upsilon-s$, and the acc. *aššu-n* that of *fructu-m* and *bāhú-m*. To mention one consonant stem, *humant-* 'all' is *humant-an* in the acc. masc. fem., and thus has IE $-m$, as do Gr. $\phi\acute{\epsilon}\rho\omicron\nu\tau-a$ and Lat. *ferent-em*. Its gen. *humand-aš* has the IE $-os$ of Gr. $\phi\acute{\epsilon}\rho\omicron\nu\tau-os$.

These instances and many others show how closely related Hittite and IE singular declensions are. In the plural, however, we find a totally different state of affairs. The resemblance of the nom. masc. fem. and the nom. acc. neut. to corresponding IE forms is equally striking, but here all resemblance ends.

⁴ With Hrozný, op. cit. 27, and against Sturtevant, Lang. 5.8 ff., I believe that confusion of IE o - and \bar{a} -stems is to be assumed rather than that the latter had not as yet been developed when Hittite separated from the mother tongue. No reliance whatever is to be placed on the fact that not a single IE \bar{a} -stem is found in Hittite with the a -declension, for it is almost equally difficult to find Hitt. o - or i -stems with IE cognates of the same declension. The tremendous influence of non-Indo-European peoples on the Hittites, and the consequent loss of most of the IE word material, fully accounts for all of these facts. On the other hand there are several positive reasons for believing that the \bar{a} -stems must have existed in Hittite at one time. The gen. sing. of the a -declension in $-aš$ cannot go back to IE $-so$, as Hrozný, loc. cit., thought, and it is much more probably the gen. of \bar{a} -stems in IE $-\bar{a}s$ than that of consonant stems in $-os$. It is to be observed that once the gen. sing. of IE o -stems ended in $-aš$ the only difference between Hitt. descendants of o - and \bar{a} -stems could have been the $-s$ of the former in the nom. sing. In the acc. IE $-om$ and $-\bar{a}m$ both became $-an$, in the dat. $-\bar{o}i$ and $-\bar{a}i$ became identical even before the form of consonant- and i -stems had been substituted, and in the nom. pl. IE $-\bar{o}s$ and $\bar{a}s$ both had become $-aš$. Thus four of the five inherited case-forms had become identical, and the addition of the s to the feminines in the nom. sing. was a very slight step which completed the merger. A final argument in favor of the previous existence of \bar{a} -stems is the neuter plural in $-a$, IE $-\bar{a}$, which since Johannes Schmidt, Pluralbild. d. Neut., is believed to have been the same form as the nom. sing. of the \bar{a} -stems, and thus presupposes the latter.

Of all the local cases, locative as well as ablative and instrumental, there is no trace as far as nouns are concerned, and the accusative masc. fem. and the genitive and dative of all genders are formed essentially like the nom. masc. fem.

The neuter plural forms are easily recognized as having an IE origin, or analogy explains the slight deviations. The collective singular in *-ā*, e. g. in IE **iugā* Skt. Ved. *yugā* Gr. *ζυγά* Lat. *juga*, which yielded the nom. acc. pl. of neuter *o*-stems, happens not to be found in Hitt. *o*-stems,⁵ but the expected *-a* is found in various other stems which must have received it by analogy. Thus the *i*-stem *mekki-* has *mekkaj-a* with a strong suffix grade, and the *u*-stem *aššu-* has *aššaw-a*. The *nt*-stem *humant-* has *humant-a*⁶ comparable to Gr. *φέρωντ-α*.⁶ The long *-ī* of *i*-stems is found in the neut. pl. *huwasi*, corresponding to forms like Skt. *trī* Av. *θrī* Lat. *trī* (in *trīginta*) Ir. *trī* etc. The corresponding long *ū* of *u*-stems (cf. Ved. *mādhū*) is presupposed by Hitt. *ginuš* 'knees', but it is extended by an *-s* by analogy to the masc. fem. forms. Finally, the type Av. *dāman*, without ending but with lengthened suffix, is found in *tagan* nom. acc. pl. of the neuter *tegan* 'land' and *widar* nom. acc. pl. of *watar* 'water'. On the other hand the pl. *udne* of the *e*-stem *udne* 'country' is probably analogical, and its originally long final vowel was patterned after the similar long vowels of *i*- and *u*-stems.

The nom. pl. masc. fem. always ends in *-š* preceded by a vowel, so that we find *-aš*, *-eš*, and *-uš*. The expected *-aš* IE *-ōs* of *o*-stems is found in *gaenaš* nom. pl. of *gaenaš* 'son in law', which thus is formed like IE **ulkuōs* Skt. *vṛkāḥ* Goth. *wulfōs* and Osc. *Núvlanús*. Other *o*-stems have *-eš* or *-uš*, e. g. *antuhšeš* or *antuhšuš*. Here the ending *-eš* is borrowed either from *i*- or consonant-stems, granting, however, the remote possibility that the *e* of *antuhšeš* is the pronominal *-oi* of Gr. *λόκοι* Lat. *lupī* Lith. *vilkaĩ*, with *s* added by analogy to other stems. Among *i*-stems we would expect *-eš* IE *-eies*, as in Skt. *trāyaḥ* Gr. *τρεις* Lat. *trēs*, the two latter with contraction as Hittite. It may be

⁵ Cf. Götze, ZA 2. 262. It is not impossible, however, that *parnaššea*, which he there rejects as an example, may after all be such a form with pronominal ending.

⁶ It is impossible to determine whether the final vowel of these forms is IE *ə* or *ā*. In either case their relation is clear.

that this form is found in *tuzziš*⁷ 'armies' acc. pl., since *i* often takes the place of *e* in Hitt. writing and is apparently then derived from it. Alongside of this is found *tuzziš-aš*,⁸ which is formed like Gr. πόλις < *πόλις, except that the -*aš* of *a*-stems takes the place of the original -*eš*. Among *u*-stems on the other hand we find a form which is almost like the IE **sūneues* Skt. *sūnāv-aḥ*, except that in the stem final *a* (probably IE *o*)⁹ appears instead of the expected *e*. So *aššaweš* nom. pl. of *aššu-š* 'good'. Consonant stems show the IE -*es* of e. g. Skt. *pād-aḥ* Gr. πόδες in *humant-eš* 'omnes'. In the last two instances we are bound to observe that it cannot be determined whether the final -*eš*¹⁰ was originally long or short, and that they show influence of the *i*-declension in case it was the former.

As opposed to the origin of -*aš* from IE -*ōs* and -*eš* from IE -*eies* or -*es*, the source of -*uš* is by no means so clear, not so much because no plausible explanation has been found as because there are too many possibilities without certainty, and because the whole question is complicated by the fact that -*uš* is the regular ending for the acc. pl. of all classes, although -*aš* is not unknown, e. g. in *kurimpaš* 'dregs' of the *o*-declension.

Most attractive at first sight therefore seems to be derivation of -*uš*, e. g. in *antuhšuš*, from IE -*ons* of the acc. pl. of the *o*-declension, e. g. IE **ulkwons* Gr. Cret. λύκων Goth. *wulfans*, or from -*uns* of the acc. pl. of the *u*-declension, e. g. in IE **sununs*, Goth. *sununs*, Gr. *σύνες*, and the former was suggested by Kretschmer and adopted by Hrozný, *Die Sprache der Hethiter* 26 f. However, there are very serious objections to this interpretation of -*uš*. The worst is this, that while the fate of *ns* in Hittite has not been definitely settled, the presumption

⁷ Cf. Hrozný, loc. cit.

⁸ Could *tuzziš-aš* have been IE -*eies*, and thus be identical with the ending of Gr. *τρεῖς* and Lat. *trēs*?

⁹ Scarcely an inherited -*ou* in ablaut with *eu*, but rather due to some analogy.

¹⁰ Hrozný, op. cit. 90, doubted the existence of short -*ēs* probably because he believed IE *e* became *a* in Hittite. Since recognizing that IE *e* remains (where *a* seems to appear it can be explained as due to vowel gradation or to analogy according to Professor E. H. Sturtevant), there is no objection to thinking of the -*eš* of the Hitt. plural as coming from both IE -*es* and -*eies*.

against the loss of the *n* is quite clear, for the isolated *anz-aš* 'nos', which is the IE **ns* of Goth. *uns*¹¹ with later pluralizing *-aš*, is worth more than any number of doubtful examples in which the *n* might have dropped. For *-uš* from *-ons* there would be an additional burden of proof few would care to assume. Another objection will carry less weight from an empirical point of view, but is not negligible in addition to the other. It would be the only instance in which Hittite shows any IE plural form which cannot be derived from IE nominatives. While therefore it will be safer to suspend ultimate judgment until this question of Hittite phonology is cleared up, the presumption is decidedly against *-uš* being an original acc. ending. The use of *-uš* as the normal acc. suffix may well be secondary and its cause quasi-accidental, i. e. a slight preponderance of *-uš* in acc. function due to unknown causes could have led to more consistent differentiation between the two cases. This assumption of a secondary distinction between *-uš*, *-aš*, and *-eš* receives support from the use of the form in *-aš* as a gen. dat. pl., where no one can think of IE origin.

Until unexpected evidence to the contrary is brought forth, we will therefore assume that *-uš* was originally a nom. pl. ending of *u*-stems (Hrozný's first opinion (loc. cit.)), and that this existed alongside of the ending *-aweš* in *aššaweš* similarly to *tuzziš* alongside of *tuzzijaš*¹² in case of *i*-stems. Now this *-uš* as a nom. pl. of *u*-stems allows a multitude of explanations of which several seem plausible, but of which none can be considered certain. In the first place it seems that there is a good deal of evidence, although nothing unambiguous, for IE nominatives pl. in *-is* for *i*-stems and in *-ūs* for *u*-stems. The possible evidence for the former was brought out by Hirt,¹³ PBS Beitr.

¹¹ The almost complete transparency of the relationship of Hitt. to IE personal pronouns (cf. Lang. 6. 163 ff.) makes this obvious etymology of *anzaš* practically certain, and makes improbable the other possibility suggested by Sturtevant, Lang. 4. 228.

¹² I do not mean of course that *tuzzijaš* and *aššaweš* were exactly parallel as to formation. It is evident at once that there is a difference not only between *-aš* and *-eš*, but between the penultimate *i* and *a*. The parallelism consists simply in the alternation of the endings.

¹³ It should be observed that Hirt tried to establish IE *-is* only for the feminine nouns of the *i*-declension.

18. 525: Goth. *ansteis* nom. pl. of *anstis* 'grace' could come from IE *-eies* or *-is*, but the fact that the identical OHG *ensti* has short *i* and therefore cannot come from a circumflexed contract vowel, but must come from IE *-is*, makes the latter probable for Goth. *ansteis* as well. The same *-is* is found in Lithuanian *i*-stems, e. g. *nāktys*, nom. pl. of *naktis* 'night', which in spite of Wiedemann, Handbuch 31 f., cannot come from IE *-eies*. In addition we find forms like the Vedic *bhūmīḥ* : *bhūmi* 'earth', and a few Latin nominatives pl. in *-is* belonging to *i*-stems, e. g. *ovīs*. With all these can then be compared the O.Blg. *nosti* 'noctes' and Ir. *trī* < **trīs*, although these can as well be judged otherwise. We could now also add the Hitt. *tuzziš* 'armies', which, as we have seen, also need not come from *-is*.

Parallel to this array of evidence for *-is* for the nom. pl. of *i*-stems, we can cite for the corresponding *-ūs* of *u*-stems, aside from the Hitt. nominatives and accusatives pl. in *-uš*, firstly the Lith. *-ūs* in the nom. pl. of *u*-stems, e. g. *sūnūs* 'sons', and secondly the nom. pl. of the Lat. fourth declension, e. g. *fructūs*, which is not satisfactorily taken as an acc. used for nom. in view of the fact that Latin distinguished the two cases rigidly and confused them only when phonetic processes obscured the difference. Cf. Stolz-Leumann, Lat. Gram.⁵ 275. It is also precarious phonology to derive *fructūs* from **fructiues* IE. *-eyes*, although Sommer, Krit. Erläuter. 111, thinks it can be done. So it seems that Lat. *fructūs* is at least a plausible support for IE *-us*.

On the other hand it cannot be ignored that not one of these witnesses for either IE *-is* or *-ūs* is unambiguous. The Lith. *-ys* and *-ūs* are easily explained by proportional analogy to the acc. pl. of Lith. *ā*- and *ē*-stems: nom. *-ōs* : -acc. *-ās* and *-ēs* : *-ēs* = *-ys* : *-is* and *-ūs* : *-ūs*. Cf. Brugmann, op. cit. 216. Hirt's argument from OHG *ensti* is weakened by the fact that confusion between the nom. and acc. in Germanic languages could account for the short *i* as coming from the acc. *ensti* < *-ins* (Brugmann, loc. cit.). Moreover, Hirt's entire argument from the OHG quantity of the *i* is not valid because we probably have to assume IE *-is*, if it existed, to have been itself circumflexed, for Vedic nominatives pl. in *-is* repeatedly have a

dissyllabic value. Cf. Hirt, *Idg. Gram.* 5.186. Nor would it be credible to say that IE *i*-stems might have had circumflexed *-īs*, and *i*-stems an *-is* with acute, for there is no indication that the length of one of the two contracted vowels could influence the syllabic quality of the result. Finally, the Latin nominatives like *ovīs* and *fructūs* cannot with absolute certainty be rejected as original accusatives even if this is unsatisfactory from a syntactic point of view, and for the Hittite forms in *-iš* and *-uš* other equally plausible explanations are easily found.

It would consequently be wise not to bank too much on the explanation of Hitt. *-uš* as coming from an original IE nom. pl. of *u*-stems in *-ūs*, but rather to consider the other possibilities. Thus it may be that Professor Sturtevant is right when he thinks of an old nom. pl. in *-eus*, reduced ablaut-grade of *-eues*, which would be paralleled by *-eis* : *-eies* in *i*-stems. This, however, seems rather bold because there is no trace so far of any vowel gradation of the IE nom. pl. ending *-es*. Cf. Hirt, *op. cit.* 3.56.

Another possibility is suggested by Leskien's¹⁴ explanation of the Lithuanian forms discussed above. He argued that Lith. *-ys* and *-ūs* were the endings of stems with long *-ī* and *-ū*, and were transferred analogically to those with short *-i*- and *-u*-. Thus cf. Skt. *brhatīḥ* nom. pl. of *brhatī*. It may be either that this took place as early as the IE period, and that all the ambiguous evidence for IE nominatives in *-īs* and *-ūs* is to be viewed in this light, or else a similar process took place in Hittite itself before the leveling of quantities¹⁵ took place. After *-uš* once became established with *u*-stems, transfer to others was easy enough, considering the Hittite tendency to confuse declensions generally, even the *i*- and *o*-declensions (Hrozný, *op. cit.* 24).

The simplest and most convincing explanation seems to me to be the following. Just as the IE *o*-stems or Hitt. *a*-stems formed their plural in *-aš*, and the *i*-stems occasionally in *-iš*, an analogical *-uš* was created for the *u*-stems, for the characteristic of the plural was felt to be an *š* after the stem-vowel,

¹⁴ *Bildung der Nom. im Lit.* 243.

¹⁵ After the leveling of quantities confusion of *ū*-, and *ũ*-stems, of *ī*- and *i*-stems was even more inevitable than between *a* (IE *o*-) and *ā*-stems.

i. e. after the long stem-vowel if the formation is earlier than the leveling of quantities, or if this leveling did not take place at all but is merely an illusion due to the failure to recognize quantity consistently in writing. It might be added that this explanation also could be applied to IE times, for the frequent *o*-stems offered an excellent pattern with their nom. sing. in *-os* and their nom. pl. in *-ōs*.

It thus appears that the assumption of the origin of Hitt. *-uš* as a nominative ending meets with no difficulty whatever, and in view of the improbabilities involved in thinking of *-uš* as being an acc. in origin, it seems safe to say that *-aš*, *-eš*, and *-uš* were all merely endings of different stems and had the same syntactic function originally, that they then became confused in their use with the various stems, but tended to become differentiated syntactically. For the most striking case of this differentiation the cause lies close at hand. The use of the ending *-aš* in genitives and datives pl. is undoubtedly due to the influence of the gen. sing. in *-aš*, and usually the latter is identical in form, e. g. *antuhšaš* is gen. sing. and gen. dat. pl. Either the old gen. sing. of the lost *ā*-stems, which ended in IE *-ās*, or the gen. sing. of consonant stems in IE *-os*, after wiping out quantitative distinctions in Hittite,¹⁶ caused the plural in *-aš* to lean first to genitive function, and then the dat. pl. followed the genitive, more closely associated as these two cases are opposed to the nom. acc. Thus it happens that the gen. sing. and gen. dat. pl. became different only when there was a difference of stem form, e. g. *šuppi-* 'pure' forms the gen. dat.

¹⁶ I am well aware that the question of the continuance of IE quantities in Hittite has not been definitely settled and awaits further investigation. On the other hand, until the decision has been made, it seems decidedly more probable that quantitative distinctions had actually been lost because so many cases of borrowing of forms of one declension from the other, not to speak of the complete merging of declensions in *o* and *ā*, *i* and *ī*, *ū* and *ū*, are very easily explained in this way, while they would offer considerable difficulty if the quantitative distinctions were retained. If there really is a tendency to write the double vowel where the original quantity must have been long, it would merely argue that the loss of the difference was so recent that there still was the old orthographic tradition. At the same time the fact that the difference was not consistently expressed, is more intelligible if the difference no longer existed.

pl. *šuppajaš*, with penultimate *a* after the nom. pl. *šuppaeš*, opposed to *šuppijaš*, gen. sing., with penultimate *i*.

As a result of this history of Hitt. plural forms, unless it should develop contrary to expectations that *-uš* after all came from *-ons* or *-uns*, it appears that Hittite inherited from Indo-European only one plural form, which became nominative in other IE languages, but in Hittite had no case meaning whatsoever, and was at first used indifferently as nominative, accusative, genitive, and dative. Hittite thus bears evidence to a state of affairs when there were no cases in the plural, but only a plural, no matter whether the word was masc., fem., or neut. It is a state of affairs surmised to be original in Brugmann, Gr. 2. 2. 1². 120, where the doctrine is presented that *s* in the plural was such a plural sign with no associated case meaning.

If we thus analyze the Hittite plural inflection as presupposing the original condition before the existence of plural cases, we have already tentatively answered a question which must present itself, whether or not the simplicity of the Hitt. nominal paradigm in the plural is due to decay. The fact that Hittite seems to have inherited only one plural form, would point to the interpretation already made, that it is a survival with a tendency to redistribute secondarily among the cases forms which were originally semantically identical but belonged to different classes of stems. Another consideration points the same way. It is highly improbable that Hittite would virtually give up the old plural declension in its entirety, without substituting new forms for old disappearing cases, when the singular declension as such was held intact. The whole state of affairs rather bears evidence of a tendency to create differentiated plural cases where there were none before, and the existence of the earlier singular cases was a dominant factor in stimulating this tendency. We thus are brought to the realization that not only are the plural cases younger than the singular cases, but that the former developed almost under our eyes after Hittite and the other IE languages parted company,¹⁷ and that the way Hittite took was

¹⁷ The Hittite declension thus is an important witness for the correctness of Forrer's and Sturtevant's position (see Lang. 2.25 ff.) that Hittite was only a remoter relative to the other IE languages, and had gone its own way long before the end of the Indo-European period.

radically different from that of the others, and that it was far from attaining as complete a plural paradigm as the latter.

After recognizing this fact we can draw extremely important consequences for the history of the plural in the previously known IE languages and in the mother tongue. Their nominal plural inflection also was comparatively young, it arose in the IE period itself, and consequently developed from material found at that time. This means, that as far as the plural cases¹⁸ are concerned, we are no longer in the realms of fantastic glottogonic speculation when we consider the problem of the origin of these endings, but we can almost say that we have solid ground under our feet. Every plural case ending must be derived from material known to be Indo-European, and any suggested derivation which fails to meet this test will be extremely suspicious, all the more so because in the nature of the case inflectional endings must have originated from the most commonly used elements, which would not probably have disappeared without leaving a trace. We thus have a criterion by which to judge the various theories suggested to explain the origin of IE plural endings, and of others which may now present themselves. It may be that recognition of the recent origin of plural endings so limits the possibilities that we can draw practically certain conclusions regarding the origin of some of them.

If now we ask the question how, by analogy to known linguistic processes observed in historical periods, these case forms could have developed, we may answer: 1) by pluralization of singular case forms through the addition of the plural sign; 2) by adding singular case endings to the inherited plural without case meaning; 3) by adaptation of forms which to begin with had a totally different function; 4) by composition with prepositions known to have existed in IE times. We shall now take up the IE case forms one by one and attempt to establish the probable way in which each developed.

1. The Accusative

The question of the origin of the IE ending for the acc. pl., sc. the *-ns* e. g. of **ulkyo-n*s Gr. *λύκο-ς* Goth. *wulfa-n*s (*-ns*

¹⁸ Only the nominative pl., which was as old as the singular cases or at least older, as a plural without case meaning, than any other plural form, would be an exception to this.

after a consonant, e. g. IE **ped-ns* Skt. *pad-áh* Lat. *ped-ēs*), is complicated by the uncertainty of the origin of the Hitt. pl. ending *-uš*. If this should really be an acc. in origin, and came from *-ons* or *-uns*, it is clear that the acc. is the one case form of the plural which can be traced to the proto-Indo-European times before the separation of Hittite from the other IE languages. If on the other hand, as seemed altogether more probable above, the *-uš* of *antuhšuš* and the like is of nominative origin, the accusative is as late a development as the other plural cases. In that case the origin of its suffix *-ns* from *-ms*, i. e. by pluralizing the accusative singular in *-m*, as suggested by Schleicher, KZ 4. 59, and others, becomes more probable than ever, for no other derivation suggested¹⁹ so far meets the test of transparency of origin imposed by its late development. On the other hand, formation of a plural case by adding a pluralizing *-s* to the corresponding case of the singular is in accordance with *-bhis* = *-bhi* + *s*, *-ois* = *-ōi* + *s*, *-is* = *-ī* + *s*, *-ūs* = *-ū* + *s*, which will all be discussed below. The doubts of e. g. Brugmann, loc. cit. 120, or Hirt, IF 17. 57, concerning the phonetic development of IE *-ms* to *-ns* as it is presupposed here, need not be taken too seriously. That this change need not have been repeated again and again during the long linguistic period which we call Indo-European, involving hundreds and even thousands of years, should be self-evident. Because Gr. *-vs-* was treated differently in the period in which *ἐφῆνα* < **ἐφανσα* and the one in which *παῖσα* < *πανσα* arose, no one would dispute the validity of assuming the phonetic changes involved. Now it would be absurd to expect every IE *-ms* which arose during a period of such length to show the same treatment. The only difference in principle between the two cases is that the material for IE times is too scanty to allow determination of the chronology, but that does not make it any less probable that such a difference existed. I do not see the slightest reason therefore in being so frightened at the treatment of IE *ms* in Goth. *mimz* 'flesh, meat' or Lat. *membrum* < **memsrom* (Hirt. loc. cit.) that we think it necessary to abandon the derivation of the acc. pl. ending *-ns* from *-ms*. We might add that Hirt's objection has all the

¹⁹ This applies to Hirt's assumption of origin from *-mns* (IF 17. 57) as well as a later suggestion of *-nes* *-nos* (Idg. Gram. 3. 59).

less weight because the examples given do not bear on the treatment of original final IE *-ms*²⁰ anyway, but it is medial in both instances. However, even for the change of medial IE *ms* to *ns* one may quote Falk-Torp s. v. *aas*, who derive Germanic **ansa-* from **amsa-*.

Once more, then, the origin of the acc. pl. ending *-ns* by pluralizing with *-s* the acc. sing. in *-m* is almost certain in case the acc. also developed after the separation of Hittite; but even if it is earlier than that time, there is no reason for not considering the same derivation highly probable. It would be supported by the same parallel instances, the question of the sound change involved would be the same, and even then it would be intrinsically more probable than any other derivation suggested.

2. Genitive

The postulate that cases of as late origin as the gen. pl. must have developed from known IE linguistic material, stamps as impossible the suggestion of Hirt, *Idg. Gram.* 3. 60, that the suffix *-ōm*, which is found in all classes of stems (e. g. in *o*-stems like IE **ulkuōm* Skt. *vṛkām* Lith. *vilkū* or Gr. *θεῶν* or Lat. *virum*), contains the stem in *-o-* with added particle **om*, e. g. IE **pedōm* is **pedo + om*. Even were we able to bring ourselves to the acceptance of Hirt's assumption of the origin of so many noun suffixes from particles, yet chronological²¹ considerations would make it impossible here, for when the gen. pl. was formed, **om* by all means was no longer felt as particle, nor was there any plausible analogy according to which the gen. pl. could have received the same from another pattern. On the other hand this postulate is clearly in accordance with the derivation suggested by the writer in *Am. J. of Phil.* 46. 156 f., that the gen. pl. arose by adaptation from an adjectival nom. acc. sing. neuter comparable to the Skt. pronominal *asmākam*,

²⁰ Goth. *mimz* cannot be understood with IE final *-ms*. It was a neuter *o*-stem and came from **memso-m*, or else it was reduplicated *me-mes-om*. See Walde, *Vgl. Wörterb.* 262. I do not understand Meringer, *IF* 21. 304, who insists on **méms* as the IE form, for the nom. sing. of *es*-stems is never found with zero grade of the suffix.

²¹ Semantically this etymology is no less difficult. How did this particle **om* come to be associated with the genitive plural particularly?

which must have originated in combinations like *asmākam āyuh* 'our life' reinterpreted as 'the life of us'. So IE **rēgom*²² *ġenos* 'the royal race' became 'the race of kings' and became associated with the substantive IE **rēg-* 'king' instead of the adjective **rēgo-* 'royal'. This *-om* was then added to *o-* and *ā-*stems with the result that both *-o-om* and *-a-om* contracted to *-ōm*, and this ending in turn displaced *-om* even with consonant stems.

We may say, then, that the derivation of the gen. pl. suffix from an old neuter nom. acc. of a singular adjective is not only intrinsically probable, but is supported by the absence of other plausible explanations.

3. Dative-Ablative

In IF 5. 251 ff. Hirt assumed that the IE dative-ablative pl. ended in *-mos* originally (cf. O.Blg. *vlzkom* Lith. *vilkāms* OHG *wolfum* from IE **ulko-mos*). The IE *-bhos* which is found alongside of it e. g. in Lat. *equābus* or *ovi-bus* or in the Kelt. *-bo* of Gall. *Ναπαυκαβο*, as well as *-bhios* found in Skt. *āçvā-bhyaḥ*²³ Av. *haēnā-byō*, he thought of as originating by various contaminations of *-mos* and the *-bhis* which is found in the instrumental plural. Undoubtedly this reconstruction contains truth and error mixed to an almost equal degree. The contamination of *-mos* and *-bhis* to *-bhios* and *-bhos* is certainly in itself easily understood, provided there was a syntactic point of contact between the instrumental and dative-ablative cases, but it does not answer the question why dative and ablative should be alike and why they should have received the forms in

²² I am not impressed by the arguments of H. Sköld, IF 47. 366, and others, that the neuter nom. acc. in *-om* is not of IE origin. At the most, and that is doubtful, it could be proved that an earlier form in *-o* still existed alongside of the common one in *-om*, but it is utterly incredible that as strange an innovation as the adding of the *-m*, should have taken place independently in so many different languages.

²³ Hirt now (Idg. Gram. 3. 61) presupposes *-bhies* for Skt. *-bhyah* Av. *-bhyō*. This is highly improbable in view of the *o* of the endings *-bhos* and *-mos* without parallel form with *e*, although there is in itself no reason why these forms should not have been influenced by the Abl. gen. sing. in *-es* as well as *-os*. Hirt, however, thought of the *-es* as the nom. pl. ending, but this would fail to account for the ablatival meaning as opposed to other local relations.

-os, while the instrumental retained the form in -is. On the other hand, assuming that the two forms were differentiated from the beginning, so that forms in *-bhis* were always instrumentals and those in *-mos* always dative-ablatives, it does not show why there should be any contamination. Worst of all the assumption of *-mos* as the original ending for the dative-ablative again violates the postulate that a case of late IE origin must have a transparent origin, for what *-mos* could have been, one cannot understand.

On the other hand again the identification of the *bh* and *m* of these dative-ablative forms with the corresponding *bh* and *m* of instrumentals is certainly convincing, as is also Hirt's identification of the *-bhi* at the basis of *-bhis* with the *-φι* of Gr. *ἰφι* 'with might', and the preposition **bhī* found in Goth. *bi* OHG *bī*, and in the last syllable of Gr. *ἀμ-φί*, for which cf. also Brugmann, Gr. 2. 2. 2². 820.

The objections to various aspects of Hirt's hypothesis can all be removed in the following way. In the first place we cannot assume *-mos* as the original dative-ablative ending and *-bhis* as the original instrumental suffix. There were rather alongside of each other two endings of prepositional origin, *-bhi* and *-me*, which were practically identical semantically, meaning 'among, near by, with'. The latter was the first syllable of Gr. *με-ρά* Goth. *mip* OE *mid*, also of IE **me-dhiō-s* Skt. *mádhyā-h* Gr. *μέσο-s* Lat. *me-diū-s*,²⁴ cf. Brugmann op. cit. 856. As soon as this **me* became established as a suffix, it became associated with *-bhi* in the same function, and consequently became *-mi* under its influence without leaving a trace of the *e*. It is obvious that these forms in *-bhi* and *-mi* were used indifferently as ablative, instrumental, or locative, for there was nothing in the meaning of these prepositions that implied either motion from or position, but these ideas were suggested by the context. It is also obvious that, like most singular forms probably originally, they were also indifferently singular and plural,²⁵ but became

²⁴ An original form **-me* for the preposition is established by **me-dhi* as the basis of *-medhiō-s*, for *-dhi* can only be the same suffix we find in Gr. *οἰκο-θι* and the like. There thus is scarcely a possibility that the *t* of Gr. *μερά* and the *dh* of **me-dhi* are variants of a root final.

²⁵ Brugmann, op. cit. 2. 2. 1². 120, did not believe that *-bhi* could have

confined to the singular when distinct plural forms had developed and thus relieved them of part of their burden. There was thus nothing about *-bhi* and *-mi* that pointed to plural use until they were fitted out with the pluralizing *-s* and became *-bhis* and *-mis*, thus leaving to the singular the older forms without *-s*. These endings *-bhis* and *-mis* at first could still express in the plural any local case meaning, i. e. they were indifferently ablative, instrumental, or locative. However, their use as ablatives was given up after developing a new ablative under the influence of the genitive-ablative singular in *-os*, the forms of the type Gr. *ποδός*. In other words *-bhis* and *-mis* in ablative use became either *-bhos* and *-mos* or *-bhios* (*-mios* happens not to have occurred) through contamination with the genitive-ablative singular of consonant stems, which ended in *-os*. Cf. Am. J. of Phil. 39. 129 ff.^{25a} The spread of these forms in *-bhios*, *bhos*, and *-mos* from the ablative to the dative plural was a case of syncretism, which started with the use of both dative and ablative with words of taking away or depriving. Cf. e. g. Lat. *oculos ecfodiam tibi* Plaut. or Germ. *jemandem etwas nehmen* for the use of the former. This left *-bhis* and *-mis* to instrumental as well as locative use in the plural, but after the development of a distinct loc. pl. they became confined to instrumental use only.

We thus find that all the endings of the dative-ablative are explained by three ordinary processes: pluralizing old numerically indifferent prepositional endings with the *-s*, assimilating the plural ending of a case to the ending of the corresponding singular case, and syncretism of two cases which had a large sphere of meaning in common. Moreover, the assumption of *-me* as the primary form of the *m*-suffixes has these advantages over *-mos*, that its etymology is transparent as opposed to the hopeless obscurity of the latter, and that, even if we have no confidence

have been indifferent to number originally. Undoubtedly he would have thought otherwise if he had been in position to recognize the lateness of plural nominal inflection in general. See now also H. Sköld, IF 47. 365 f.

^{25a} So also Meillet, Mém. 8. 243. Wackernagel-Debrunner, Ai. Gram. 3. 67, object that the sphere of usage common to abl. and gen. is not large enough, although Delbrück, Gr. 3.190 f., is of the opposite opinion in his discussion of Gaedicke.

in the derivation suggested, it goes back to a much earlier time than the special plural suffixes, and that for this early age the necessity of transparency²⁶ cannot be assumed with certainty. Finally we thus find the reason why the forms ending in *-os* should be dative-ablative rather than instrumental. It would be hard to make out an equally plausible case for any other suggested derivation of the dat. abl. pl. endings.

4. Instrumental

The formation and origin of the instrumental plural has been touched upon to a large extent under the heading of the dative-ablative. We have seen that *-bhis* in Skt. *ācāvā-bhiḥ* Av. *haēnā-biš* etc. was the pluralized *-bhi* of Gr. *ἰ-φι* or *ἀγέλη-φι*, that *-mis* in Goth. *baurgim*, O.Norse *þrimr*, O.Westgerm. *Vatwims*, or Lith. *rañko-mis* was the preposition **me* changed to *-mi* under the influence of *-bhi*, and was then pluralized to *-mis*. We should add that in so far as forms in *-mis* with long *ī* occur (so certainly O.Blg. *raika-mi*), they are due to the influence of instrumentals in *-is* which will be discussed below, and that traces of instrumentals pl. without *-s* (e. g. Lett. *-mi* < *-mī*,²⁷ see Brugmann, op. cit. 2. 2. 1.² 262 f.) are natural survivals of old numerically indifferent forms in *-bhi* and *-mi*, which can be compared with the indifference of Gr. *-φι* in this respect. It remains to discuss the other types of instrumental pl. which do not have a *bh-* or *m-*suffix.

²⁶ By the postulate of the transparency of etymology here and elsewhere is not meant that the origin of a formative must be evident at first sight, but rather that its origin must be intelligible when it has been supposedly found, or else the theory of derivation must be rejected. There are indeed countless formations in different IE languages like Greek or Latin of which the origin is still obscure, so that it would be absurd to maintain that a formation as remote as an IE case formation could not be unknown. But if a theory of origin is once advanced, and the time of such origin is determined, it must then stand the test of intelligibility in the light of the evidence of that time, and must be explained on the basis of material certainly or at least probably existing at that time.

²⁷ The long *ī* of *-mī* is either due to influence of the similar long *ī* of *-mīs*, or, if its origin should really be IE, it is a case of lengthening of final IE vowels. See Brugmann, Gr. 1.² 496. However Hirt, Idg. Gram. 2. 227, would confine this to monosyllables, which show the only certain cases. Undoubtedly the first explanation is preferable.

The instr. pl. of *o*-stems in *-ōis*, e. g. IE **wlk^wōis* Skt. *vṛkāḥ* Av. *vəhrkāiš* Gr. *λύκοις* Lat. *lupīs* have been judged variously. The lateness of pl. inflections, however, must forbid analyses like that found in Hirt. op. cit. 3. 62, that *-ōis* is the stem vowel *o* + *ai* + *s*, or that of Brugmann, loc. cit. 268, that *-ōis* contains *-is*. We could understand neither the *ai* of the former nor the way *-is* of the latter was supposed to have become part of the case suffix, nor how to account for the long *ō* in the latter case. Rather is *-ōis* made by pluralizing with *-s* the dative sing. of *o*-stems in *-ōi*, e. g. IE **wlk^wōi* Av. *vəhrkāi* Gr. *λύκῳ* Lat. *lupō*, a position held by Thurneysen, BB 8. 269, and Hirt. IF 5. 254, but now discarded by the latter. This does seem difficult syntactically and can be understood only if the forms in *-ōi* and *ōis* at one time had a partially identical sphere of usage. The most reasonable explanation seems to be that *-ōis* was once a dative plural of *o*-stems, as it continued to be in Greek and Latin, but that the Aryan and Balto-Slavic languages gave this up through the influence of other stems, in which they had become accustomed to the identity of the dative and ablative. It would be the same thing as the Balto-Slavic use of the gen. pl. in ablative use as opposed to the original dative-ablative, because they had become used to the identity of genitive and ablative in the singular.²⁸

The Avestan instrumentals pl. in *-iš*, e. g. *namēn-iš* or *ašaon-iš*, could be easily explained as a pluralization of the instr. sing. in *i* of *i*-stems, e. g. *azi* instr. sing. of *azi-š*. Unfortunately only forms from consonantal stems are found with this ending, which must have received it by analogy to *i*-stems. However, this is not so serious as might appear, for there is no example extant of any instr. pl. of *i*-stems, and we have as good and better a right to expect e. g. **aziš* as **azi-biš*, all the more so because **aziš* is supported by the analogical *-uš* of *u*-stems. It hardly clears the situation to refer to *namēn-i*,²⁹ an instr. sing. in *i* belonging to a consonant stem, because that is so obviously patterned after the instr. sing. of *i*-stems: *namēnīš* : *namēnī* = *aziš* : *azī*. All in all nothing more probable than the assumption of a pluralizing of the instr. sing. in *-i* by *-s* can be suggested.

I have referred to the similar pluralization of the ending *-ū*

²⁸ Cf. Brugmann, Gr. 2. 2. 2^a. 477.

²⁹ Cf. Bartholomae, Stud. z. idg. Sprach. 1. 75 f.

of *u*-stems, e. g. *bazūš* instr. pl. of *bazu-š* 'forearm' is the instr. sing. *bazu* + *-s*. An actually occurring example is *avanhūš* instr. pl. of 'not, good, bad' (cf. *vanhu-š* 'good'). According to Brugmann, IF 22.336, the *-y* of Slavic *vlaky* and other *o*-stems in the instr. pl. was patterned after this lost form of instr. pl. of *u*-stems, which disappeared before the earliest documents.

We thus see that all forms of the instrumental pl. can be explained by the addition of a pluralizing *-s* to singular cases. This is in itself more probable and convincing than the view now set forth by Hirt, Idg. Gram. 3.62 f., that *-s* was added to old nominatives or plurals without case meaning which were of pronominal origin, e. g. that Lith. *-ais* is *-ai* of the nom. pl. + *-s*. The instrumental use of the case thus finds no explanation whatever.

5. Locative

The locative plural, at least at first sight, allows several possibilities of derivation. The Gr. *-σι* e. g. of *Ἀθήνη-σι* or *λύκοι-σι* or *πο-σί*, if it stood by itself, could be derived from the old IE nom. pl. of *ā*-stems in *-ās* (at a time when this was still an undifferentiated plural) by the addition of the *-ι* of the locative sing., so that *Ἀθήνησι* would represent the original stratum, and the forms of the second and third declension were analogical. However, this seems improbable because the corresponding *-su* of the Aryan and Balto-Slavic branches cannot be explained analogously, for there is no loc. sing. in *-u*, and to separate the *s* of *-su* from that of *-σι* would seem unsafe unless cogent reasons for so doing should appear.

Another possibility is that *i* and *u* were different elements added to the form in *-s*, presumably thought of as the *-s* of the plural. Cf. Hirt, loc. cit. 63. Against this we may again hold the postulate that forms developed so recently ought to have an intelligible etymology, but what *i*³⁰ and *u* could have meant, and how they might have given rise to locative meaning, no one could know.

The only credible possibility concerning the relation of *-su*

³⁰ If the *i* were long, we might think of the deictic *ī* of Gr. *οὐτος-ι* and the like, but this would not help for the intractable *u*.

and *-σι* is that the former, found e. g. in Skt. *sūnā́-su* or O.Blg. *synŏchŏ*, was the only IE ending, and that Gr. *-σι* was derived from this by assimilation to the *-ι* of the locative sing. of the type *ποσί*, an explanation supported by the existence in Lithuanian of forms in *-se* alongside of those in *-su*, e. g. both *tri-sè* and *tri-su*, which certainly derived their *-e* from the locatives singular in *-e*, whatever the origin of this may have been. Cf. Brugmann, Gr. 2. 2. 1². 248.

Having decided upon *-su* as the one IE ending of the locative plural, it is necessary to apply to it the postulate of transparency of more recently developed endings, and to try to determine its origin. I take this *-su* to be the preposition **su* found in the Lith. *sù* 'with' and the O. Bulg. *sŏ* 'with', although the latter also goes back to IE **kom*. See Brugmann, op. cit. 2. 2. 2². 897. The assumption of the prepositional origin of the *-su* of the loc. pl. is supported by the analogy of *-bhi* : OHG *bī* and *-me* : Gr. *με-τά*, the sources of case suffixes in *bh* and *m*. However, to establish the IE origin of the preposition and, consequently, to make more plausible the derivation from it of the loc. pl. ending *-su*, it ought to be possible to find the preposition in at least one more language group than the Balto-Slavic. This group, together with Kretschmer, KZ 31. 416 f., and Pedersen, IF 5. 60, I believe to be the Greek, which has the preposition *σύν* 'with', identical with Lith. *sù* except for the added *-ν*. To explain the difficulties connected with this etymology I take it that at one time Greek possessed both **σύ* IE **su* Lith. *sù* O.Blg. *sŏ* and **κον* IE **kom* Lat. *cum*, to the former existence of which the adjective *κοινός* 'common' < **κομῖος* bears evidence. Since **kom* became **κον*, it is only natural that the semantically equivalent **σύ* should have been extended to *σύν*³¹ by analogy to it. Conversely *σύν* influenced **κόν* to become **κύν*, and finally **κύν* and *σύν* were contaminated to *ξύν*.³² Against this it cannot be argued that *ξύν* must have been the earlier form.³³ In accord-

³¹ Meillet, *Études* 162 f., considers the alternation of the Balto-Slavic preposition with and without *n* as ancient. It would seem doubtful whether the *ν* of Gr. *σύν* should be connected with the former, but if so, it does not affect the etymology otherwise.

³² It is obvious that the whole process must have been completed before the loss of pre-vocalic initial Gr. *σ*.

³³ Boisacq, *Dict. étym.* 660, rejects the correlation of Gr. *σύν* and Lith.

ance with the evidence of the Homeric poems we would have to say that on the contrary it was the later, since *σύν* is the usual form, and *ξύν* occurs only occasionally. Cf. e. g. Capeller, *Wörterb.* 409. However, the objection of G. Meyer, *Gr. Gr.*³ 248, that initial *σ* in Greek became the rough breathing needs to be removed. Kretschmer, *loc. cit.*, referred to Cyprian *ῥν* (cf. Hes. *ἑνγεμος· συλλαβή· Σαλαμίνιοι*) to meet this, i. e. the co-existence of *ῥν* and *σύν* would be like that of *ῥς* and *σῶς*, where no one doubts identity of origin, whatever may be the explanation of the initial *σ* of the one. Moreover, we have the explanation that the *σ* of *ξύν* was a preserving force for that of *σύν*, identical in use as they were. The Cypr. *ῥν* thus represents the phonetic development when not molested by analogy.

If then the Gr. *σύν* is the Lith. *sù*, we find IE **su* 'with' in two of the three same language branches in which the loc. pl. in *-su* or its modification *-σι* is found, a co-incidence which at least lends additional probability to the assumed connection between the two.

Also semantically the derivation of a locative plural ending from a preposition meaning 'with' meets with no difficulties. The most obvious use of the loc. pl. is with designations of persons, in which case 'among' is the ordinary English equivalent. But a development from 'with' to 'among' is easy and also found otherwise, and to some extent the two are interchangeable. Thus we could say either 'among the Indians' or 'with the Indians this is a common practice'.

After making plausible the existence of an IE preposition **su* 'with, among' and consequently of the derivation from it of the locative ending *-su*, there remains one difficulty to clear up. It is evident that we must answer the question how it can be that a case form as late in origin as the loc. pl. and all the oblique pl. cases has the appearance of being a stem-form compounded with a preposition. At that time stem-forms were no longer in existence as distinct words, and we should expect the preposition to be compounded with an inflected form, in this instance the undifferentiated plural which later became the nom.

sù, and declares *σύν* to be a sandhi form of *ξύν*. In view of the fact that we know nothing of such a sandhi treatment of *ξ* otherwise, we would hardly call this a successful explanation.

pl. only. We cannot support the stem-form in e. g. **sũnu-su* instead of the expected **sũneues-su* or **sunūs-su* by pointing out the use of the stem-form before the instrumental suffixes *-bhis* and *-mis* or the dative-ablative suffixes *-mos*, *-bhos*, and *bhios*, since all these were refashioned from singular or numerically indifferent case-forms which were incomparably older than the plural cases. But locatives in *-su* must have been compounded in IE times with forms of plural meaning from the beginning, and so the derivation suggested cannot be deemed probable before the stem-form of the noun is explained.

We may answer by saying that undoubtedly the stem-form was not originally employed before *-su*, but there are distinct traces that the ending was at one time added to the 'nominative' plural. Not only can we refer to the pronominal loc. pl. IE **toi-su* Skt. *tē-su* O.Blg. *tě-chz* Gr. *τοῖσι*, which is made by adding *-su -si* to the nom. pl. **toi* Skt. *tē* Gr. *τοί*, but also to the nominal loc. pl. of the Greek *o*-declension, e. g. *λύκοισι* (not **λυκοσι*), which is also based on the nom. pl. in *-οι*. It is also possible that the Aeolic ending *-εσσι* for consonant stems shows the same addition of *σι* to the nom. pl. Wackernagel, IF 14. 373, has referred to the parallelism of the pair *λύκοι* : *λύκοισι* and e. g. *πόδες* : *πόδεσσι*, while pointing out the difficulties of the ordinary doctrine concerning the origin of the ending *εσσι*. Although he drew the conclusion that *-εσσι* was analogical to the former, it will be seen that its origin is more intelligible as an addition of *-σι* e. g. to the nom. *πόδες* than as an analogical formation. However that may be, it is probable again that in *ā*-stems and stems in long vowels generally the *-su* was added to the nom. pl., but that the reduction of *ss* to *s* gave the appearance of addition to the stem-form. Thus IE **ekyā-su* Skt. *ācīvā-su* might well have been originally **ekyās-su*, and similarly *-ēs-su*, *īs-su*, and *ūs-su* in case of stems in *ē*, *i*, and *ū*.³⁴ After the dropping of the one *s*,³⁵ these patterns in which *-su* was

³⁴ For the two latter it presupposes IE nominatives pl. in *-is* and *-ūs*, as assumed by Leskien, loc. cit.

³⁵ We thus would find another example for the IE reduction of *ss* to *s*, which is otherwise found in **esi* for **es-si* 'thou art' (cf. Skt. *ási* Gr. *ελ* < **εσι*) and in the loc. pl. of *s*-stems, e. g. *q̄hasu* : *q̄hah* 'Bedrängnis' < *q̄has-su*, sim. *ap̄su* < *apas-su*, and in *jōsi* < **jōs-si* 'thou shalt taste'

now apparently added to the stem, as well as the fact that the stem-form was used before case forms generally, particularly before the other local cases of the plural with their endings *-bhis*, *-mis*, *-mos*, and *-bhios*, all these influences brought it about that the use of the plural form before *-su* was discontinued and that the basis for the loc. pl. became in actual fact what it was in appearance in some of its forms, and actually of all other case forms, namely the stem-form of the noun.

After going over the list of IE oblique cases of the plural, and finding that every one can be explained on the basis of known IE material, and by processes observed in certain linguistic changes of our own day as well as the past, we must come to the conclusion that their history not only involves nothing against the theory of the origin of plural cases in IE times after the separation of Hittite, but rather furnishes additional support for the assumption of the late origin of these forms. The very fact that all can be traced to material which must have existed in late IE times, is a strong presumption that they did originate in some such way, and when we add this consideration to the evidence from Hittite examined in the first part of this paper, I believe that the conclusion cannot be refuted. With the possible, but not probable exception of the accusative, early Indo-European knew only the one plural form which later became specialized into a nominative. All the other pl. cases were developed in the late IE period when Hittite had separated and gone its own way.

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(root *juṣ-*). As Wackernagel, *Ai. Gr.* 1.111, points out, cases where *ss* seems to be inherited from IE can be explained by analogical restoration, and there is no need to try to limit the occurrence of the sound change to the end of the word, an alternative suggestion in Brugmann, *op. cit.* 1². 725.

VOCALIC ALTERNATION IN THE DISYLLABIC BASE IN INDO-EUROPEAN ¹

The appearance of Herman Hirt's *Indogermanischer Ablaut* at Strasbourg in 1900 marked a notable advance in the investigation of Indo-European phonology, and further progress was made in Herman Güntert's *Indogermanische Ablautsprobleme* (do. 1916). Nevertheless, as Hirt's fellow-countryman M. van Blankenstein pointedly observed,² he made his collections 'in accordance with his principle (*Ablaut*, p. iii) that the essential is not the material, but the co-ordinating idea, the hypothesis . . . and his theories are illustrated by examples which are numerous indeed, but selected *ad hoc*'. Van Blankenstein's criticism is just, but seems to have made no impression on Hirt when he wrote what is practically a new edition of his *Ablaut*; his *Indogermanischer Vokalismus* (= *Indogermanische Grammatik*, II, Heidelberg, 1921) shows little advance in this regard.

In studying verbs belonging to the bases postulated by Hirt, van Blankenstein, and Güntert, it became clear to the present writer that a considerable number of forms obviously belonged to these bases, but found no place in the schemes which they set forth. Where, for example, may one put Ved. *dhīmahi*, *dhēthē*, *dhēhi*, *dhāithē*, *dhāyi* in the Hirtian scheme for **dhē-* (*Ablaut*, § 50)? May not the base be, indeed, **dhēi-* rather than **dhē-*?

Considerations such as these led the writer to a series of three investigations of vocalic alternation which are to appear almost simultaneously and which are mutually complementary: the present study, 'The Personal Endings of the Present and Imperfect Active and Middle' (in *Language*), and 'Sur l'inflection des prétendus thèmes en -i' (in *Bulletin de la Société de Linguistique de Paris*). The essential foundation of the latter two is given here, where an attempt is made to account for *all* forms of typical bases (except for patent analogical derivatives), the chief sources, because the earliest, especially in accentuation, being Vedic and Greek.

¹ For typographical reasons, the other footnotes to this article are given at the end of the study.

The working hypotheses employed in this study are the following: (1) the normal grade (N) has not only a reduced (R, ə) and a zero-grade (Z), but also a shortened grade (S; only if N be long) which likewise has a reduced grade (R, ə);³ if N is short, it may, under the conditions usually recognised, be prolonged (P); (2) the base-form ends either in a diphthong or in a vowel, the former, it would seem, originally before an inflexional ending beginning with a vowel, the latter before one beginning with a consonant, whence, although there was much confusion in the historic period, it would follow that the typical I-E base terminated in $-\tilde{e}i$, $-\tilde{e}u$, $-\tilde{o}i$, $-\tilde{o}u$; (3) the qualitative alternation $e : o$ is due to the fact that the former was accented, but not the latter (whence $-ei$, etc., but $-oi$, etc.); (4) $R\ \tilde{e}i > ai$, but $R\ \tilde{e}i > \tilde{i}$; (5) the combinations $e_r e$, $e_n e$, etc. $> \tilde{i}$, \tilde{n} , etc.

The principal representations of R and R̄ (subdivided as a before vowels and b before consonants) in the chief I-E language-groups appear to be as follows:

I-E	Ved.	Gk.	Lat.	Celt.	Teut.	Balt.	Slav.
ə	i	a	a	a	a	a	o
əi	ē	ai, η	ai, ae	ai, ae	ai	ai, iē	ě
e	a	a	a	a	e, u	i	ī
ei a > i	i y	u	i(y)	iy	iy	iy	īy
b > i	ī	ī	ī	ī	ī	y	ī
e _r	ir	ap	ar	ar	or, ur	ir	īr
e _n	an	av	an	an	on, un	in	īn

For monosyllabic bases the grades of the chief I-E combinations would be:

I-E	$\tilde{e}i$	$\tilde{e}r$	$\tilde{e}n$	$\tilde{e}x$	Cf. Ved. < I-E * $\tilde{d}\tilde{o}i$ - 'give'
N a	$\tilde{e}i$				{ $\tilde{d}\tilde{a}y-i$
b	\tilde{e}	$\tilde{e}r$	$\tilde{e}n$	$\tilde{e}x$	{ $\tilde{d}\tilde{a}-ti$
S a	$\tilde{e}i$				{ $\tilde{d}\tilde{e}-s\tilde{t}ha-$
b	\tilde{e}	e_r	e_n	e_x	{ $\tilde{d}\tilde{a}-tra-$
R a	$\tilde{e}i$	$\tilde{e}r$	$\tilde{e}n$	$\tilde{e}x$	{ $\tilde{d}\tilde{e}-h\tilde{i}$
b	\tilde{e}				{ $\tilde{d}\tilde{a}-\tilde{d}\tilde{i}-v\tilde{a}nt-$
R a	$\tilde{e}i$	e_r	e_n	e_x	{ $\tilde{d}\tilde{i}y-\tilde{a}t\tilde{e}$
b	\tilde{e}				{ $\tilde{d}\tilde{a}-\tilde{d}\tilde{a}-ti$
Z a	i	r	n	x	{ $\tilde{d}\tilde{i}-ts\tilde{u}-$
b	0				{ $\tilde{d}\tilde{a}-\tilde{d}-v\tilde{a}nt-$

When, as is usually the case, the base is disyllabic (types [q]e_iē_i-, [q]erē_i-, [q]enē_i-, [q]exē_i-), the alternations become apparently more complex—though the principles remain the same—since both syllables are subject to apophony in almost all possible combinations.⁴

From the purely schematic point of view, disyllabic bases should show the following thirty-two vocalic alternations, of which examples are here cited for all except PRb ēxə:

	e _i ē _i	erē _i	enē _i	exē _i
PR a	ē _i ā _i	ērā _i	ēnā _i	ēxā _i
b	ē _i ə	ērə	ēnə	ēxə
PR a	ē _i e _i	ēr _e _i	ēn _e _i	ēx _e _i
b	ē _i e	ēr _e	ēn _e	ēx _e
PZ a	ē _i ī	ēr _i	ēn _i	ēx _i
b	ē _i	ēr	ēn	ēx
NR a	e _i ā _i	erā _i	enā _i	exā _i
b	e _i ə	erə	enə	exə
NR a	e _i e _i	er _e _i	en _e _i	ex _e _i
b	e _i e	er _e	en _e	ex _e
NZ a	e _i ī	er _i	en _i	ex _i
b	e _i	er	en	ex
RN [P] a	e _i ē _i	erē _i	enē _i	exē _i
b	e _i ē	erē	enē	exē
RS [N] a	e _i e _i	er _e _i	en _e _i	ex _e _i
b	e _i e	er _e	en _e	ex _e
RR a	e _i ā _i	erā _i	enā _i	exā _i
b	e _i ə	erə	enə	exə
RR a	e _i e _i	er _e _i	en _e _i	ex _e _i
b	e _i e	er _e	en _e	ex _e
RZ a	e _i ī	er _i	en _i	ex _i
b	e _i	er	en	ex
ZN [P] a	i _i ē _i	rē _i	nē _i	xē _i
b	i _i ē	rē	nē	xē
ZS [N] a	i _i e _i	re _i	nei _i	xe _i
b	i _i e	re	ne	xe

	<i>eiēi</i>	<i>erēi</i>	<i>enēi</i>	<i>exēi</i>
ZR a	<i>iəi</i>	<i>rəi</i>	<i>nəi</i>	<i>xəi</i>
b	<i>iə</i>	<i>rə</i>	<i>nə</i>	<i>xə</i>
ZB a	<i>iẽi</i>	<i>rẽi</i>	<i>nẽi</i>	<i>xẽi</i>
b	<i>iẽ</i>	<i>rẽ</i>	<i>nẽ</i>	<i>xẽ</i>
ZZ a	<i>ii</i>	<i>ri</i>	<i>ni</i>	<i>xi</i>
b	<i>i</i>	<i>r</i>	<i>n</i>	<i>x</i>

These alternations find historical illustration in such bases as the following:

**gherēi*- 'desire' ¹⁵

**awēi*- 'favour' ¹⁴

**q̄wrẽi*- 'buy' ¹⁰

**ḡwẽi*- 'overpower' ⁸

* <i>gveḡēi-</i> 'overpower' ⁸	* <i>gveḡēi-</i> 'buy' ¹⁰	* <i>avēḡ-</i> 'favour' ¹⁴	* <i>gherēḡ-</i> 'desire' ¹⁵
PR ^a b			Gk. ἐ-χῆρα-το
PR ^a b			
PZ ^a b	Ved. <i>ji-gāy-a</i> ¹¹	Gk. ἐν-η(ς)-ῆς	
NR ^a b	Skt. <i>jayi-ṣṇu-</i> ⁶		Ved. <i>hāry-ati</i>
NR ^a b	Ved. <i>jāya-ti</i>	Gk. ἀ(ς)-ῆ-ῥās Ved. <i>āva-ti</i> Ved. <i>āvi-ṣṭha-</i> Ved. <i>ō-man-</i>	Lat. <i>hori-tur</i> Gk. χάρ-μα
NZ ^a b	Ved. <i>jē-ṣi</i> Ved. <i>a-ḡ-i-ṣīt</i> ⁷ Gk. βι-ᾶ	Lat. <i>avē-re</i>	Gk. χαρῆ-ναι
BN [P] ^a b		Brāh. <i>krīyā-tē</i> Ved. <i>kray-ā-</i> , <i>krē-ṣyati</i> ¹³	
BS [N] ^a b	Ved. <i>jē-sā-</i> Ved. <i>a-jayī-t</i> ⁸	Ved. <i>krīṇī-tē</i>	Ved. <i>hari-nā-</i>
BR ^a b	Skt. <i>a-ji-jaya-t</i> ⁹ Ved. <i>ji-gī-ṣati</i> Ved. <i>jiy-ate</i> Ved. <i>ji-gī-vānt-</i> Ved. <i>jiyā-as</i>	Ved. <i>āvi-t</i> Ved. <i>ū-tā-</i> Ved. <i>avi-ṣyāti</i>	Gk. χάρι-ς Gk. χαρ-ᾶ
ZN [P] ^a	Brāh. <i>jiyā-na-</i> Ved. <i>-jya-</i>	Ved. <i>vi-vāy-a</i> , Skt. <i>a-vāi-ṣīt</i> ⁷ Ved. <i>vē-ti</i>	Ved. <i>hṛnāy-ānt-</i> Goth. <i>grē-daus</i>
ZS [N] ^a b		Pāli <i>kiṇā-ti</i>	
ZR ^a b		Gk. πρία-σθαι OIr. <i>crena-im</i> Ved. <i>krī-tā-</i>	
ZB ^a b	Ved. <i>ji-tā-</i>		
ZZ ^a b	Brāh. <i>ji-gī-vānt-</i> Ved. <i>ji-jy-āu</i> , <i>ji-tā-</i>		Gk. χαρ-τός

	* <i>derēi-</i> 'split' ¹⁶	* <i>genēi-</i> 'beget, bear' ²¹	<i>genōi-</i> 'know' ²²	* <i>petēi-</i> 'fly' ²⁶
PR a	Brāh. <i>dāray-atī</i> ¹⁷			Ved. <i>pātáy-atī</i>
PR a	OCs. <i>u-dari-ti</i>			
PZ a	Skt. <i>dāra-na</i> ¹⁸			Sūt. <i>pāta-na</i> ¹⁸
NR a	Skt. <i>dāry-atē</i> ¹⁹			Skt. <i>pātáy-atē</i> ¹⁹
NR a	Ved. <i>da-dār-a</i>	Ved. <i>ja-jān-a</i>	OCs. <i>zna-j-q</i>	Ved. <i>pa-pāt-a</i>
NR a		Ved. <i>jāni-ṣva</i>	Gk. <i>γέ-γωv-a</i>	Gk. <i>περά(ι)ομαι</i> ¹²
NR a	Ved. <i>dārī-man-</i>			Brāh. <i>pātī-tum</i> ¹²
NZ a	Sūt. <i>dāra-na</i> ¹⁸	Ved. <i>jāna-ti</i>		Lat. <i>petī-tor</i>
NZ a	Gk. <i>δείπω</i> < * <i>δειπί-ω</i>	Ved. <i>jāny-a-</i>		Ved. <i>pāta-ti</i>
PN [P] a	Ved. <i>dār-ṣi</i>	Ved. <i>jān-man-</i>	Goth. <i>kannj-an</i> ²³	Brāh. <i>-pāt-y-a</i>
PN [P] a			Goth. <i>kann</i> ²³	Ved. <i>pāt-man-</i>
RS [N] a	Gk. <i>ἐ-δάργ-ν</i>		Lith. <i>žinó-ti</i>	Gk. <i>περή-σομαι</i>
RS [N] a	Ved. <i>dāray-atī</i>	Ved. <i>janáy-atī</i>		Ved. <i>patáy-atī</i>
RS a	Skt. <i>a-dī-dāra-t</i> ⁹	Ved. <i>á-jī-jana-t</i>		Ved. <i>patá-ru-</i>
RS a		Ved. <i>á-jani-ṣtha-</i>		
RS a		Ved. <i>jāni-syāti</i>		Ved. <i>pātī-tá-</i>
RS a	Brāh. <i>dāry-atē</i>	Ved. <i>jāy-atē</i>		Brāh. <i>pātī-gas</i> ²⁷
RS a	Brāh. <i>dīr-ná-</i>	Ved. <i>jā-tá-</i>	Ved. <i>jā-nāti</i>	Ved. <i>a-pī-pata-t</i> ⁹
RS a			Lat. <i>gnā-rus</i>	
RS a		Brāh. <i>jani-tā</i>		
ZN [P] a	Ved. <i>-dar-dir-á-</i>	Ved. <i>jani-tú-</i>	Av. <i>pa'ti-zan-ta</i> ²⁴	
ZN [P] a	Gk. <i>δαρ-τός</i>		Ved. <i>jñāy-atē</i>	
ZS [N] a	lex. Skt. <i>drā-d</i>	Ved. <i>gnā-</i>	Ved. <i>á-jñā-sam</i>	Gk. <i>πρή-σομαι</i>
ZS [N] a			Ved. <i>jñē-ṣam</i> ⁷	Gk. <i>πρo(ι)-έω</i>
ZS [N] a			Skt. <i>jñā</i>	
ZR a			Ved. <i>a-jī-jñi-pat</i> ⁹	Ved. <i>pa-pī-vānt-</i>
ZR a	Brāh. <i>drñē-gāt</i>			
ZR a		Gk. <i>γέ-γωv-μαι</i>	Brāh. <i>jñā-ptá-</i>	Ved. <i>a-pa-ptā-t</i> ⁸
ZZ a		Brāh. <i>jā-jñi-</i>	Lith. <i>žini-ā</i>	
ZZ a	Ved. <i>dr-ta</i> ²⁰	Ved. <i>ja-jñ-ē</i>	Av. <i>za-nāṭ</i> ²⁵	Ved. <i>pa-pt-ús</i>
ZZ a	Gk. <i>δρα-τός</i>			

tersēi-* 'dry' ²⁶grebheī-* 'grasp' ²³**edēi-* 'eat' ²⁰**seghēi-* 'hold' ²⁸Skt. *sāhoy-atī* ¹⁷Brāh. *āday-atī* ¹⁷

[illegible]

In view of the fact that the same phoneme may have more than one origin (e. g. Ved. *i* = I-E *i*, *a*; Ved. *a* = I-E *a*, *e*, *o*, *e*; Gk. *a* = I-E *a*, *a*, *e*, *n*, *m*, etc.), it is very possible to assign a number of the examples cited in these lists to other than the places here given them—the only criterion seems to be the accent. Nevertheless, the principle as a whole seems sound; in vulgar parlance, 'it seems to work'. If this be not all that one might desire, it may at least serve as an incentive to further investigation.

Furthermore, our suggested development of the older views of vocalic alternation may explain certain other phenomena, four of which may briefly be noted.

(a) The 'prothetic vowel' in Gk. words of the type of *ῥεβος*: Arm. *erek*, Goth. *rigis*; *ῥυθρός*, *ῥεύθω*: Lat. *ruber*³⁷ may not be prothetic at all, but, rather, the grades *ῤῥ* [N] *b*, *ῤῥ* *a*, and *ῤῥ* [N] *a* of **ereg^uēi-* (itself from **erē^u-* with the determinative *g^u*) and **ereudhēi-*, though one must note that vowels of this type (cf. *ῥέφω*, *ῥροφος*: OHGerm. *hirni-reba*) occur in Gk. only before liquids, nasals, and *u*.

(b) Doublets of the type of Gk. *καλιά*, *καλίά* seem to be the grades *ῤῥ* *a* and *ῤῥ* *a* respectively of the base *kelēi-*, etc.³⁸

(c) The alternation of Ved. *r* : *ir* : *īr* and of Gk. *pa* : *ap* (e. g. *dr-ta-*, *ā-dar-dir-ur*, *dir-nā-*; Gk. *δρατός* : *δαπτός*) is best interpreted as an alternation of *ZZ* *b*, *ῤῥ* *b*, and *ῤῥ* *b* (**dr-*, **dr-*, **dr-*).³⁹

(d) The very frequent co-existence of athematic and thematic bases (e. g. Ved. or Skt. *ēti* : *ayati*; *kārṣi* : *kārasi*; *kṣēti* : *kṣáyati*; *jēṣi* : *jáyati*; *ataṣṭa* : *átaksata*; *dhákṣi* : *dahanti*; *dāṣṭi* : *dāsasi*; *nēṣi* : *náyasi*; *nāuti* : *návāmahē*; *bhákṣi* : *bhájati*; *bhārti* : *bhárati*; *mátsi* : *mádati*; *yákṣi* : *yájasi*; *yótsi* : *yōdhanti*; *rátsi* : *rádati*; *rāṣṭi* : *rájasi*; *váṣṭi* : *vásanti*; *vákṣi* : *váhasi*; *sátsi* : *sídati*; *stāumi* : *stánvatē*; *harmī* : *hárati*; Gk. *βίβημι* : *βιβάω*; *ἔγεντο* : *ἐγένετο*; *δίδημι* : *δέω*; *ἔδμεναι* : *ἔδω*; *ἐννυμι* : *ἐννώω*; *ἐραμαι* : *ἐράομαι*; *κλύμενος* : *ἔκλυον*; *φέρτε* : *φέρω*)⁴⁰ seems readily explicable on the theory of vocalic alternation from a primitive base-ending *-ēi-*.

The theory here advanced for disyllabic bases appears to be equally valid for trisyllabic, which are mere extensions of disyllabic bases, as the latter sometimes are of monosyllabic. For the most part, however, trisyllabic bases, as having the grade *Z* in their original first or second syllable, are found in the historic period only as disyllabic (cf. the bases **q^ureīēi-*, **grebhēi-*, **tersēi-* discussed above).⁴¹ From the purely theoretic point of view, one may posit the following 110 alternations for bases of this type:

<i>*ereqēi- *auēgei-</i>		<i>*ereqēi- *auēgei-</i>		<i>*ereqēi- *auēgei-</i>	
P R N	a ē _r eqēi ā _u egēi	R NN	a eqēi egēi	ZNN	a reqēi ŋegēi
	b ē _r eqē ā _u egē		b eqē egē		b reqē ŋegē
P R S	a ē _r eqei ā _u gei	R NS	a reqei uegei	ZNS	a reqei ŋegei
	b ē _r eqe ā _u ge		b reqe uege		b reqe ŋege
P R R	a ē _r eqai ā _u gai	R NR	a reqai uegai	ZNR	a reqai ŋegai
	b ē _r eqa ā _u ga		b reqa uega		b reqa ŋega
P R R	a ē _r eqei ā _u gei	R NR	a reqei uegei	ZN R	a reqei ŋegei
	b ē _r eqe ā _u ge		b reqe uege		b reqe ŋege
P R Z	a ē _r eqi ā _u gi	R NZ	a reqi uegi	ZNZ	a reqi ŋegi
	b ē _r eq ā _u g		b req ueg		b req ŋeg
PZN	a ē _r qēi ā _u gēi	R R N	a eqēi egēi	Z R N	a reqēi ŋegēi
	b ē _r qē ā _u gē		b eqē egē		b reqē ŋegē
PZS	a ē _r qei ā _u gei	R RS	a reqei uegei	Z RS	a reqei ŋegei
	b ē _r qe ā _u ge		b reqe uege		b reqe ŋege
PZR	a ē _r qai ā _u gai	R RR	a reqai uegai	Z RR	a reqai ŋegai
	b ē _r qa ā _u ga		b reqa uega		b reqa ŋega
PZ R	a ē _r qei ā _u gei	R R R	a reqei uegei	Z R R	a reqei ŋegei
	b ē _r qe ā _u ge		b reqe uege		b reqe ŋege
PZZ	a ē _r qi ā _u gi	R R Z	a reqi uegi	Z R Z	a reqi ŋegi
	b ē _r q ā _u g		b req ueg		b req ŋeg
N R N	a eqēi egēi	R ZN	a eqēi egēi	ZZN	a reqēi ŋegēi
	b eqē egē		b eqē egē		b reqē ŋegē
N R S	a eqei uegei	R ZS	a reqei uegei	ZZS	a reqei ŋegei
	b eqe uege		b reqe uege		b reqe ŋege
N R R	a eqai uegai	R ZR	a reqai uegai	ZZR	a reqai ŋegai
	b eqa uega		b reqa uega		b reqa ŋega
N R R	a eqei uegei	R Z R	a reqei uegei	ZZ R	a reqei ŋegei
	b eqe uege		b reqe uege		b reqe ŋege
N R Z	a eqi uegi	R ZZ	a reqi uegi	ZZZ	a reqi ŋegi
	b eq ueg		b req ueg		b req ŋeg
NZN	a eqēi egēi	ZPN	a rēqēi ŋegēi		
	b eqē egē		b rēqē ŋegē		
NZS	a eqei uegei	ZPS	a rēqei ŋegei		
	b eqe uege		b rēqe ŋege		
NZR	a eqai uegai	ZPR	a rēqai ŋegai		
	b eqa uega		b rēqa ŋega		
NZ R	a eqei uegei	ZP R	a rēqei ŋegei		
	b eqe uege		b rēqe ŋege		
NZZ	a eqi uegi	ZPZ	a rēqi ŋegi		
	b eq ueg		b rēq ŋeg		

Without making the detailed investigation which the subject doubtless merits, it must suffice here to present a few examples which may serve to illustrate the principles involved:

**perekēi*- 'ask': NZZ a, OHGerm. *ferg-ōn*; ZPZ b, Ved. *á-prāk-ṣam*; ZNR a, lex. Skt. *a-pa-pracha-t*; ZNZ b, Brāh. *prak-ṣyati*; ZRZ b, Ved. *praś-ná*-; ZZS b, Ved. *prchá-nti*; ZZZ a, Skt. *prchy-atē*; ZZZ b, Ved. *prṣ-tá*.⁴²

**ereqēi*- 'cry aloud': NZS b, Ved. *ārca-ti*; NZZ b, Skt. *ān-arc-a*; RZS a, Skt. *arcay-ati*; RZS b, Ved. *arcá-tri*-; RZR b, Skt. *arci-ṣyati*; ZPZ b, Lith. *rēk-ti*; ZNZ b, OCS. *rek-q*; ZZZ a, Ved. *rcy-átē*.⁴³

**enekēi*- 'carry': PRZ b, Gk. *ἐν-ήνοχ-α*,⁴⁴ *δουρ-ηνεκ-ές*; PZZ b, OIr. *ro-iccu*; NZZ b, Ved. *ān-āś-a*; RNZ b, Gk. *ἐνεχ-θήσομαι*; RZR b, Ved. *ān-āś-a*; ZR a, Ved. *-náśa*-; ZPZ b, Goth. *ga-nōh-s*; ZNR b, Ved. *náśa-tē*; ZNZ b, Ved. *nak-ṣi*; ZRZ b, Lat. *na-n-c-iscor*; ZZR a, Ved. *ásē-ma*; ZZR b, Ved. *ási-māhi*; ZZZ a, Skt. *ási-tum*; ZZZ b, Ved. *ás-nōti*.⁴⁵

**augēi*- 'grow': PZZ b, Lith. *aug-ti*; NRZ b, Gk. *ἀ(φ)έξω* < **āfey-σ-ω*; ⁴⁶ NZN b, Lat. *augē-re*; NZR b, Ved. *ōji-ṣṭha*-; NZR a, Ved. *ōji-yas*-; NZZ a, Lith. *augi-nù*; NZZ b, Lat. *aug-men*; ZNZ b, Ved. *va-vák-ṣi*; PRN b, Lith. *pa-ūgē-ti*; ZRZ a, Lith. *ūgi-s*; ZZZ b, Ved. *ug-rá*-.

The precise accentual conditions underlying the manifold—though really simple—alternations of all the types of bases are not yet fully known; but there seems to be no reason to suspect that the current views regarding the relations of the six simple grades (P, N, S, R, R, Z) are not sound in principle, so that they may, in all probability, be extended to cover the most complicated combinations of grades.

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² *Untersuchungen zu den langen Vokalen in der ē-Reihe*, p. 2, Göttingen, 1911. For a convenient bibliographical summary, see J. Schrijnen, *Handleiding bij de Studie der vergelijkende indogermaansche Taalwetenschap*, 2d ed., pp. 300-301, Leyden, 1924.

³ J. Kurylowitz, 'Un problème de sandhi indo-européen', in *Actes du premier congrès des linguistes*, pp. 111-113, Leyden, 1928, assumes a triple *ə*.

⁴ The purely theoretic combinations PNa, b; PSa, b (or PNa, b), NPa, b; NSa, b (or NNa, b for the second pair)—i. e. *ēiē(i)*, *ēie(i)*,

eiē(i), *eiē(i)*, etc.—are not actually found, and are, accordingly, omitted in the tables given in the text. Since no bases of the type *ēwēi* are recorded, there can be no grades beginning with S or R; and the grades PP and NN are impossible for accentual reasons.

⁸ Hirt, *Ablaut*, § 358; E. Boisacq, *Dictionnaire étymologique de la langue grecque*, p. 119, Paris, 1916; A. Walde, *Lateinisches etymologisches Wörterbuch*,² p. 836, Heidelberg, 1910; Walde-Pokorny, *Vergleichendes Wörterbuch der indogermanischen Sprachen*, i, 666-668, Berlin, 1926 sqq.

⁹ I. e. *jayī-ṣṇú-* (B. Lindner, *Altindische Nominalbildung*, pp. 112-113, Jena, 1878).

⁷ I. e. *á-jāi-ṣīt*, *á-vāi-ṣīt*, *á-jñē-ṣam*, *á-grahāi-ṣyat*.

⁸ I. e. *á-jayī-t*, *á-pa-pta-t*.

⁹ I. e. *á-jī-jaya-t*, *á-dī-dara-t*, *á-jī-jñī-pat*, *á-pī-pata-t*, *á-jī-grabha-t*.

¹⁰ Hirt, *Ablaut*, § 356; Walde-Pokorny, i, 523-524; Boisacq, p. 613; R. Trautmann, *Baltisch-slavisches Wörterbuch*, p. 142, Göttingen, 1923; E. Berneker, *Slavisches etymologisches Wörterbuch*, i, 633, Heidelberg, 1908 sqq.

¹¹ I. e. *ci-krāy-a*.

¹² I. e. *krē-tum*, *pāti-tum*, *sāhi-tum*.

¹³ I. e. *krē-ṣyāti*, *sāhi-ṣyāti*, *grāhi-ṣyāti*, *tārṣi-ṣyāti*.

¹⁴ Hirt, *Ablaut*, § 445; Walde-Pokorny, i, 19; Boisacq, p. 30; Walde, pp. 71-72, 391; P. Persson, *Beiträge zur indogermanischen Wortforschung*, p. 723, Upsala [1912] (connexion with Ved. *vē-ti*, etc., is phonetically possible, but uncertain semantically, so that it is included here only with reserve).

¹⁵ Hirt, *Ablaut*, § 455; Walde-Pokorny, i, 600-601; Boisacq, p. 1047; Walde, p. 369; S. Feist, *Etymologisches Wörterbuch der gotischen Sprache*,² pp. 137, 162, Halle, 1923; H. S. Falk and A. Torp, *Norwegisch-dänisches etymologisches Wörterbuch*, pp. 316-317, 1469, Heidelberg, 1910-11; Persson, pp. 728-729.

¹⁶ Hirt, *Ablaut*, § 229; Boisacq, p. 178; Feist, p. 89; Falk-Torp, pp. 1312, 1571; Berneker, i, 179-180, 185, 201-202, 214-215, 254, 256, 257; Persson, pp. 640, 693; Walde-Pokorny, i, 797-803.

¹⁷ I. e. *dārāy-ati*, *sāhāy-ati*, *ādāy-ati*, *adāy-ati*, *grāhāy-ati*.

¹⁸ I. e. *dāra-ṇa*, *dāra-ṇa*, *pāta-ṇa*, *tārṣa-ṇa* (cf. Lindner, pp. 40, 43).

¹⁹ I. e. *dāry-ātē*, *pāty-ātē*, *sāhy-ātē*.

²⁰ I. e. *dr-tā*.

²¹ Hirt, *Ablaut*, § 319; Walde-Pokorny, i, 576-578; Boisacq, pp. 147-148; Walde, pp. 338, 339, 340; Feist, pp. 19, 234, 237; Falk-Torp, pp. 509-510, 523-524; Trautmann, p. 370.

²² Hirt, *Ablaut*, § 321; Walde-Pokorny, i, 578-580; Boisacq, pp. 142, 148-149; Walde, pp. 523-524; Feist, pp. 237-238; Falk-Torp, pp. 516, 594-595; Trautmann, pp. 370-371.

²³ For **kani-an*, **kan*, with *nn* on the analogy of *kunnum* (cf. *band*: *bundum*, etc.).

²⁴ I. e. *paíti-zan-tá-*.

²⁵ I. e. *za-náť*.

²⁶ Hirt, *Ablaut*, § 431; Walde-Pokorny, ii, 19-22; Boisacq, pp. 776 (787, 807), 821-822; Walde, pp. 573-574. The *πατήμασιν* of Aeschylus, *Eumen.* 248, is to be read, as the metre shows, *πατήμασιν*, and seems to be a Doric form for **ποτεσμα-* (cf. Attic *πετεινός* < **πετεσνος*).

²⁷ I. e. *patí-yas* (cf. Lindner, p. 128).

²⁸ Hirt, *Ablaut*, §§ 705, 741 a; Walde-Pokorny, ii, 481-482.

²⁹ I. e. *sák-ši*.

³⁰ Hirt, *Ablaut*, § 731; Walde-Pokorny, i, 118-120; Boisacq, pp. 216, 686; Walde, pp. 250, 228; Feist, p. 222; Falk-Torp, pp. 1411, 1245; Trautmann, p. 66; Berneker, i, 272-274.

³¹ I. e. *ad-mási*.

³² Trautmann, pp. 95-96; Berneker, i, 344, 347; Persson, pp. 727-728; doubtless the grade ZNN a of **gerebhēi-* (cf. OHGerm. *garba*, etc., as NZZ b of the same base), which is itself an extension in *-bh-* of **gerēi-* 'gather together' (Gk. *ἀ-γῶρ-ά*, Lith. *gre-tà*, OCS. *grŭstŭ*, etc.; cf. Walde-Pokorny, i, 590-591; Boisacq, pp. 6-7; Berneker, i, 371-372). See also Walde-Pokorny, i, 647, 652-653.

³³ I. e. *-grahí-n-* (Lindner, p. 123).

³⁴ I. e. *grhṇá-ti*.

³⁵ Hirt, *Ablaut*, § 458; Boisacq, p. 959; Walde, p. 786; Feist, pp. 151, 372-373; Falk-Torp, pp. 1318, 1319; Persson, pp. 730-731; properly the grade NZN a of **teresēi-*, an extension in *-s-* of **terēi-*, of which PZ b appears in OIr. *tír* 'land', etc. < **tēr-o-*. See also Walde-Pokorny, i, 737-738.

³⁶ I. e. *á-třsa-t*.

³⁷ Brugmann-Thumb, *Griechische Grammatik*,⁴ § 144, 3, Munich, 1913; Hirt, *Handbuch der griechischen Laut- und Formenlehre*,⁵ § 193, Heidelberg, 1912; for cognates of *ἐπεσος* see Walde-Pokorny, ii, 367; Boisacq, p. 273; Feist, p. 301; and of *ἐπυθρός*, Walde-Pokorny, ii, 358-360; Boisacq, pp. 276-277; Walde, p. 656, 659-660; Falk-Torp, p. 932; Trautmann, pp. 238-239; Hirt, *Ablaut*, § 507.

³⁸ Cf. Hirt, *Ablaut*, § 452, who seems to have failed to draw the necessary deductions from §§ 67 sqq.; for the etymology of the word see Boisacq, p. 398; Walde-Pokorny, i, 432-433, and for examples of similar type see W. Schulze, *Quaestiones epicae*, pp. 291 sqq., Gütersloh, 1892.

³⁹ Cf. Brugmann-Thumb, § 69, 1; Hirt, *Ablaut*, § 229, *Formenlehre*, §§ 110, 227, *Vokalismus*, § 157; Persson, pp. 452, 640, 672, 693, 778-779; Boisacq, p. 178.

⁴⁰ For survivals of athematic forms in Teutonic and Balto-Slavic see F. Kluge, *Urgermanisch*,⁶ § 166, Strasbourg, 1913; F. Kurschat, *Grammatik der litauischen Sprache*, §§ 1168-1204, Halle, 1876; A. Bezzenberger, *Beiträge zur Geschichte der litauischen Sprache*, pp. 198-200, Göttingen, 1877; A. Leskien, *Litauisches Lesebuch*, §§ 170-171, Heidelberg, 1919; J. Endzelin, *Lettische Grammatik*, § 601, do. 1923.

⁴¹ Cf. Notes 32, 35.

⁴² Cf. Walde-Pokorny, ii, 44; Walde, p. 604; Feist, pp. 119-120; Falk-Torp, p. 276; Trautmann, p. 216.

⁴³ Cf. Walde-Pokorny, i, 147.

⁴⁴ For χ instead of κ see Brugmann-Thumb, § 392; Hirt, *Formenlehre*, § 472. The view of the latter (*Grammatik*, i, § 365, 1, Heidelberg, 1927) that ϵ is here a preverb seems rather doubtful. For further cognates see Walde-Pokorny, i, 147; ii, 342; Walde, p. 639; Trautmann, p. 243; A. Leskien, *Ablaut der Wurzelsilben im Litauischen*, p. 78, Leipzig, 1884.

⁴⁵ Cf. Walde-Pokorny, i, 128-129; Boisacq, p. 251; Walde, pp. 506-507; Feist, p. 68; Falk-Torp, p. 769; Trautmann, p. 198.

⁴⁶ Gk. $\acute{\alpha}\epsilon\chi\omega$, Ved. *vavákṣa*, etc., are, in reality, from a tetrasyllabic base **ayegesēi*-. For further cognates see Walde-Pokorny, i, 22-24; Boisacq, p. 101; Walde, p. 73; Feist, pp. 49, 411; Falk-Torp, pp. 1390, 1416; Trautmann, p. 17; Leskien, *Ablaut*, pp. 51-52.

THE NAME Ποσειδάων AND OTHER NAMES ENDING IN -ων IN THE ILIAD

T. W. Allen asks what stayed the Ionic tide in the language of Homer short of Μαχάων and like words (*Origins*, 106; cf. 101). That tide was stayed in all names ending in -ων except that of the divine physician Παιῖων, whose extraordinary popularity and that of his song probably brought about the change from the "Aeolic" form. The distribution of names of this type and the provenance of some of them such as Poseidon and (non-Homeric) Kandaon appear to me to be of some interest and importance.

Fick draws especial attention to the ending (*Personennamen*, 2nd ed., 371), saying "Besonders zu beachten ist der Ausgang -ων d. i. -αων, welcher der späteren Namenbildung ganz abgeht; er findet sich in den Götternamen Ἐρμῶν, Παιῶν, Ποσειδάων wie in den Stammnamen Ἰ-άωνες, "Aones und stellt sich ungezwungen zu αἴτρας 'Freund', ἐνῆς 'hold', lat. *avere*, gern haben, und skrt. ávati 'fordert', ávas 'Gunst', u. s. w.". On page 440 he speaks of the great development in heroic names in this ending and gives a list of some of them.

In the Iliad besides the names of the gods Ποσειδάων and Παιῖων (for Παιῶν) there are nine names of this type. Eleven different heroes bear them, as there are two Paeonians, distinguished by their patronymics, who have the name Apisaon, and there are two Lykaons. Of these eleven heroes nine are connected with the Trojans and two are Greek. The Greeks are the celebrated Machaon, the physician from Tricca, and an Alkmaon, who has the patronymic Thestorides. The Trojans are Amopaon (8, 276), Aretaon (6, 31), Helikaon (3, 123), Hiketaon (3, 147; 15, 576; 20, 238), Lykaon (3, 333; 21, 34 ff.), Protiaon (15, 455). The two Paeonian Apisaons are mentioned respectively in Il. 11, 578 and 582 and in Il. 17, 348. There is also a Lykaon mentioned in Il. 2, 826 and 4, 89 as father of Pandaros who leads the Trojans from Zeleia in the Troad, on the Aesepus.

The striking preponderance of Trojans among the heroes of the Iliad who have names ending in -ων, the "Aeolic" form, suggests that we have here, as in the case of names ending in

-ιππος, etc., which I have discussed elsewhere (cf. *Troy and Paeonia*, 69 ff.), a Trojan trait and a link with northern Greece and its bordering countries. It is significant that two members of the Trojan royal house have such names: Hiketaon, the brother of Priam, and Lykaon Priam's son. There is also Helikaon, son of Antenor. When Homer calls two different Paeonian princes Apisaon, distinguishing them by their patronymics, he is either following some tradition or inventing well and consistently.

The ending appears in the name of a god worshipped by the Crestones, a tribe on the Paeonian border and sometimes reckoned Paeonian (Strabo, 331, 41). The god is Kandaon (Κανδάων) mentioned by Lycophron. The name is said by the scholiast on Lycophron 938 to be an epithet of Ares, an origin that has been suggested for the name of another hero which is of the same type, the Calydonian Porthaon. One of the forms of the tribal name of the Crestones, Κρηστῶνες, was doubtless contracted from Κρηστάονες, another of many northern tribal names ending in -ονες and -άονες.

Two names of this kind appear in the Odyssey, both occurring in old genealogies, Alkmaon and Amythaon.

I think that Fick's derivation of the ending -αων from the root seen in ἀτράς "friend", etc., is very unlikely. It belongs to the era which could see in the name of the Ἀλιζῶνες a compound of ἄλς and ζώνη.

Kretschmer (*Glotta* X, 28) points out that Ποσειδάων is a further development of the original form after the fashion of Ἀλκμᾶων Ἀμυθάων, Μαχᾶων and Παϊάων.

If we consider the great number of northern tribes whose names end in -ων, -ονες, -αων, -αονες or a contraction of the latter ending, it seems reasonable to hold that the origin of the ending was in the north and that in some cases the name passed from the tribal signification to a personal, as for example with Paieon and Darron (*Troy and Paeonia*, 100 ff.). I believe that the form of the name of the god Poseidon indicates a northern origin for the god, or at least for that form of his name which is made after the pattern of the names characteristic of Trojans and Paeonians in the Iliad, and of other northern gods and heroes, such as Paieon, Kandaon, Porthaon, and Amythaon.

Meyer (*Griech. Etym.* I, 506) notes the scarcity of common nouns and adjectives with the ending *-ων*. He cites the two that appear in the *Iliad*, *ὀπάων* and *διδυμάων*, and comments on the fact that the ending is chiefly found in the names of epic heroes. The word *ὀπάων*, "squire", appears four times in the *Iliad* as an epithet of Meriones, who is called *ὀπάων Ἰδομενῆος*, and once as an epithet of Koiranos, the charioteer of Meriones, who has come with him from Lyktos. It might seem to come from some traditional source connected with Crete, but it is once applied to the old Phoenix, who is called the *ὀπάων* of the father of Achilles in *Il.* 23, 360.

It is possible that many of these heroic names were, as Roscher suggests in the case of Porthaon and the scholiast on Lycophron suggests in the case of Kandaon, originally *ἐπικλήσεις* of a tribal god. Herodotus preserves a name with this ending, Philaon, the name of a Cyprian, mentioned in VIII, 11. The form Alkmaion is said by Smyth (*Ionic Dialect*, 147) to have a different suffix from that of *Ἀλκμάων*.

The forms in *-ων* disappear, or yield to the "Ionic tide", and as Fick says the ending ceases to be productive. The origin of it has not been tracked down, but I think that the evidence here presented tends to show that it is a northern and, in the *Iliad*, also a Trojan name-ending.

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REPORTS.

HERMES LXIV (1929).

Zu Menanders Perikeiromene (1-15). E. Schwartz determines the date of this play by referring vv. 89 ff. to the events told in Diod. XIX 63; 64, 5 and 67, 1. The garrison life in Athens c. 314 B. C. affords the background. He emends, elucidates, assigns passages to the respective characters and gives an interesting sketch of the progress of the play. The second act ended between vv. 216 and 217; the third after v. 300; the beginning of the fourth came before v. 301. The conclusion of the fourth act together with the fifth must have solved problems that existed after the anagnorismus (cf. *A. J. P.* 32, 464; 34, 225 and 482).

Hippokrates, des Herakleides Sohn (16-21). M. Wellmann tells of the extensive acquisitions of MSS made for the Alexandrian library by Ptolemy Soter and Ptolemy Philadelphus, which resulted in the acceptance of numerous spurious documents. This explains the mixed character of the Hippocratean corpus, which was edited for the first time by the Hippocratean Baccheius of Tanagra under Ptolemy IV; hence the numerous Hippocrates citations made by Greek and Roman physicians after the end of the III century B. C. do not authenticate them. Herophilus, whose date falls before this first edition, could of course not write a commentary to an Hippocratean corpus, as has been asserted, but he did publish an article *Πρὸς τὸ Προγνωστικὸν Ἱπποκράτους*, which attests the genuineness of this document as well as of Epidemiae I and III which agree with the former in language and content. These two books, circulating in a small roll, were much read. Apollonius mentions two MSS containing book III of the Epidemiae as existing in the Alexandrian library c. 150 B. C.; the one purchased under Ptolemy Soter or Philadelphus, the other brought by Mnemon to Alexandria under Euergetes. It is possible that the Mnemon MS contained also book I, and was entitled *Ἱπποκράτους ἐπιδημιαί*. The principle expressed in the Prognosticon and Epidemiae I and III, that diseases must be treated by regarding not merely the body, but all possible influences of climate etc., throws light on the reference to Hippocrates' method in Plato Phaedrus 270 C.

ΑΠΑΡΧΑΙ (22-40). W. Jaeger offers a number of emendations. 1. In Plut. de virtute morali c. 7, 447 F. read *μαθητικῶ* for *μαθηματικῶ*, a frequent corruption; so in Plato Soph. 219 C. This passage shows that Aristotle's change of mind in the course of his philosophical development was still known to Plutarch.

2. Ps. Plat. *Epinomis* 973 C. is discussed; in 974 B read τῆς <παρὰ> ταῦτα σοφίας τὰνθρώπινα. The knowledge of human τέχναι cannot be termed σοφία; but alone the understanding of ἀριθμός, which is a divine gift, a key to unlock the mystery of the cosmos. In Arist. *Metaph.* A 2, 982^b 7 ἐπιστήμη τῶν θείων is the highest science. 3. In Solon's iambic frgm. 25 (Diehl) read δορός for ὄρος. 4. Read <ὡς> πέφυκεν in Eur. *Bacch.* 860. 5. In Plut. *Num.* c. 8, 5 read ἀγιστεία for ἀγχιστεία. 6. In Xen. *Hell.* V 4, 54 read καθ' ἅπερ, for Xenophon uses καθάπερ only in de re equestri under the influence either of Plato or the older technical literature. The reference is to locality. ἐνθαπερ occurs in the beginning of the passage. 7. Emendations in Porph. vit. Pyth. 6 and 60; in de abst. I 12, and II 38. 8. In Dionys. Hal. ad Ammaeum c. 4 p. 261, 3 (Usener-Raderm.) read φυλακικῶν for φυγαδικῶν. 9. Hippocr. de vet. med. c. 3 (p. 578) read ἡγούμενοι, ὡς, ὅσα μὲν <ἀν> ἰσχυρὰ ἦ, οὐ δυνήσεται κτλ., and l. c. p. 576 for ὡς γάρ read καὶ γάρ. 10. In Lucian ver. hist. I 7, 76 (p. 134, 13 Nilén) delete τοὺς ἀπὸ before τοῦ ὕδατος.

Philipps Schreiben an Athen (41-62). M. Pohlenz gives a comprehensive analysis of Philip's letter (*Dem.* XII), and shows that it is a masterpiece of diplomacy. The rhetorical style is due to his trained scribes, not to Anaximenes, who however revised *Dem.* XI, which was delivered in answer to an ultimatum of Philip, of which Didymus in his commentary (col. 10, 24) gives the conclusion. The striking agreement of this fragment with the conclusion of *Dem.* XII caused Wendland (*Anaximenes v. Lamps.* 13 ff.) to assume two versions of the same text; but the agreements are due to official formulae, whereas the two passages show vitally different points. *Dem.* XII, 23 concludes with ὑμᾶς ἀμνησθῆναι μετὰ τοῦ δικαίου, καὶ μάρτυρας τοὺς θεοὺς ποιησάμενος διαλήψομαι περὶ τῶν καθ' ὑμᾶς, where διαλήψομαι, as in the later official usage, means "ich werde meine Entscheidung treffen", leaving the door open for further consideration, which is in harmony with the whole tenor of XII. The Didymus passage on the other hand reads μετὰ τοῦ δικαίου ἀμ[νησθῆναι πάσῃ μηχανῇ] ἀντιπαρταπτόμενος which is clearly an ultimatum, as is proved by the hypothesis to *Dem.* XI, with which the scholia introduce this speech, showing that the Selymbrian affair in the autumn of 340 B. C. finally brought on the war. Philip's letter (*Dem.* XII) was written a few months earlier and was intended to be spread throughout Greece as propaganda. As *Dem.* XII dealt more comprehensively with Philip's complaints, it was chosen rather than the ultimatum to conclude the first edition of the Philippic orations which was made in the time of Demochares.

Antoninus ? (63-68). F. Hiller v. Gaertringen discusses two fragmentary inscriptions published by M. Fraenkel in his *Corpus of Argolis*, and cites Paus. II 27, 6-7 where we seem to have in

Pausanias' style the contents of the missing part of this dedicatory inscription. It shows that a senator Julius (Maior) Antoninus (Realenzykl. X 666, 335) was the wealthy patron of Epidaurus. His antecedents and the source of his wealth are revealed with the aid of an inscription found in Nysa, Asia Minor, by Kuruniotes.

ΧΑΡΑΚΤΗΡ (69-86). A. Körte cites Hesiod Erga 387 and 573, and Pindar P. I 28 for the earliest examples of *χαράσσειν*; but the original meaning was to furrow, scratch a surface, from which arose the common meaning to engrave on stone, wood and bronze. Körte then passes to the sense of stamping coins [the engraving of the die evidently formed the transition]. *Χαρακτήρ* could mean *ὁ χαράσσων*, *τὸ χαράσσον* and especially *τὸ κεχαραγμένον* or *τὸ χάραγμα*. And so from the variety of coin types *χαρακτήρ* acquired the meaning of type in general. In an ethical sense it appears first in Theophrastus' *Ἠθικοὶ χαρακτῆρες*; but applied to the peculiar nature of an individual it occurs for the first time in Menander frgm. 72 (Kock): *ἀνδρὸς χαρακτήρ ἐκ λόγου γνωρίζεται* which is significant for the creator of the character comedy. No other example of this use is cited. The Greeks never investigated the individual as a distinct personality so that character in the modern sense does not occur.

Antiplatonika (87-109). J. Geffcken gives an exhaustive discussion of the numerous and persistent attacks made upon Plato and his dialogues, attacks that began with his contemporaries Antisthenes, Theopompus and others, which continued to be made by the adherents of the various schools of philosophy until the attacks gradually faded out. The article, replete with interesting details, adds zest to one's interest in Plato.

Über zwei Szenen des plautinischen Pseudolus (110-139). F. Klingner examines the fifth scene of Act I and shows that the Greek original of this play contained both the Simo and the Ballio plot, in opposition to Ladewig, Leo etc., who assumed that Plautus had combined the plots of two Greek originals. A lengthy examination of the third scene of Act I leads him to conclude that here Plautus had substituted, with interpolations of his own, a scene from a second Greek original.

Fides (140-166). R. Heinze praises Fraenkel's Thesaurus article on fides (cf. also Rh. Mus. 71 (1916) 187 ff.), though he thinks that Fraenkel erred in denying an ethical sense to the word in the beginning. After discussing a number of usages Heinze (p. 165) says: Der Römer fühlt sich in seinem geschäftlichen, gesellschaftlichen, öffentlichen Leben durch seine *fides* in mannigfaltigster Weise seinen Mitbürgern gegenüber sittlich gebunden, andererseits durch ihre *fides*, ja auch die seiner Götter gesichert. This conception was foreign to Greek *πίστις*, but Marcus Aurelius adopted it, apparently under Roman influence.

Democritea (167-183). R. Philippson under the heading 'Demokrit als Homerausleger' discusses the four fragments (22-25) in Diels's *Vorsokratiker* (XI, 1) under the title *Περὶ Ὀμήρου ἢ ὀρθοεπειῆς καὶ γλωσσέων*, also l. c. A. 100, Stobaeus II 64 and *De fin.* V, 48 ff., and concludes that Democritus' interpretations were objective and psychological, and nowhere allegorical as W. Fronmüller tried to show in his Erlangen dissertation (1901). II. Considering the much discussed question as to whether Democritus in his geometrical studies had made use of the conception of the infinitesimally small, Philippson, in opposition to Hoppe (cf. *A. J. P.* 43, p. 270) and E. Frank in his *Plato und die sog. Pythagoreer*, agrees with Heiberg who says (*Handbuch d. Altertumsw.* VI, 2 (1925)): "Plutarch lässt ahnen dasz seine Atomlehre ihm die infinitesimale Methode, die Eudoxos begründet und Archimedes weitergeführt hat, nahegelegt hat." Philippson adds the conjecture that the variously emended *ἀμλλα κλεψύδρα* (Diels VIII, 4) meant some kind of stop-watch used by judges in racing events.

Meditationen zur griechischen Verskunst (184-191). O. Schroeder urges careful observation of long syllables and of reading distinctly the two syllables of arses. The commensurability of verses depends on the equal number of *θέσεις* (Stabträger) alone. In singing, two musical notes could easily preserve the rhythm, where it seems broken when heed is given merely to the verse elements. Instead of starting our analysis of a rhythmical line from the quantity of verse elements, we should begin with cola and periods, which leads us to seek the genealogy of verse families. The Bacchic cry *ἦ ἰέ, Παιάν*, when varied to *ᾠ ἰέ Παιάν*, becomes rhythmically the same as *ᾠ τὸν Ἄδωνιν* in which form the original iambic anapaestic rhythm of the Paean cry is changed to a choriamb. The importance of this descending ascending rhythm is shown in the study of the 'Lekythion' and its development, as well as of other Greek verse forms.

Die Siegerliste von Olympia (192-198). K. J. Beloch in opposition to A. Brinkmann (*Rh. Mus.* 70, 622 ff.) shows that Mahaffy's contention (*Journ. Hellen. Stud.* II 1882), that the reliable part of Hippias' list of Olympic dates does not begin until 580 B. C., is approximately correct. Not only has he maintained this in his history; but Busolt also and Körte (cf. *A. J. P.* 26, 229) have given support to this view. Brinkmann's citation of names of early victors is of no value (cf. *A. J. P.* 38, 108/9).

Sertorius (199-227). H. Berve shows that the long established reputation of Sertorius as one of the noblest and most important Romans of the republican period is due to Plutarch's biography, which is based on the portrait drawn of him in

Sallust's Hist. Niebuhr, Mommsen, etc., also A. Schulten in his 'Sertorius' (1926) have all accepted this estimate; only Ihne (Röm. Gesch. VI, 18 ff.) raised some questions. The evidence that this favorable estimate was not universal is fragmentary: Livy's periochae (XC-XCVI), Eutropius VI, 1, Florus II, 10, Orosius V 19 ff. 23, Diod. XXXVII, 22^a and Appian b. c. I 108 ff., Iber. 101 Mithr. 68, 112. This evidence has been submerged under the extensive and enthusiastic biography of Plutarch; but in the light of this evidence Plutarch's biography is shown to have an apologetic tendency and to contain obvious misstatements. It is certain that Sertorius surrendered the Roman province Asia to Mithradates and administered Spain mainly with a view to his personal ambition; he was indeed what the Roman senate declared him to be *hostis populi Romani*.

Nus als Terminus (228-242). R. Schottlaender remarks on the difficulty of translating *νοῦς*, and discusses its development from the Homeric and popular use to a philosophical term. In Anaxagoras the Nus conception had its widest range of meaning; in Plato's Philebus (22 C) a sharp distinction is made for the first time between a general 'neutral' meaning to the 'pregnant' sense of Vernunft (reason). The verb *νοεῖν* tended toward the philosophical technical sense from the beginning and influenced this development (cf. A. J. P. 49, 390).

Wort und Geschehen in Aischylos Agamemnon (243-265). E. Neustadt shows the importance of the mystic significance of words in this play. No extant Greek tragedy is so thoroughly permeated with a daemonic atmosphere as the Orestia of Aeschylus. Vague spirits of vengeance hover in the background; mortals fulfil their behests. At the sacrifice of Iphigenia Calchas sees arise a *μνάμων μῆνις τεκνόποινος* (Agam. 155), Clytemestra becomes its instrument. The *μῆνις* of the father awakens the alastor in the realm of daemons, his incarnation in his son (Cho. 293). The one murdered becomes a spirit of vengeance: *δοσιζέται δ' ὁ θνήσκων, ἀναφαίνεται δ' ὁ βλέπων* (Cho. 327). That is the reason for the gruesome mutilation of the corpse, in order to render it harmless (Cho. 439). Words have magic import in this daemonic world, for good and for ill. It is not mere word play to etymologize the name of Helen; to use *κῆδος* in a twofold sense (Ag. 700); to refer to Apollo as *ὁ ἀπόλλων* (Ag. 1086). The whole Agamemnon tragedy is permeated with *εὐφημεῖν*. The adverb *εὖ* appears again and again, *εὐτυχής, εὐάγγελος, τὸ εὖ νικάτω* etc. Clytemestra's success in persuading Agamemnon to walk on the purple robes is to her the *προτέλεια* of her final triumph. The *πορφύρεά εἴματα* presage the *εἰμάτων βαφαί* in the palace. The article is valuable for the interpretation of this great tragedy.

Miszellen: Arthur Stein (266-267) discusses Q. Marcius Dioga

praefectus annonae, whose full and correct name now appears in an inscription from Leptis Magna. This was probably his birthplace, which would give another example of an official career due to the interest of Septimius Severus in his countrymen.—A. Körte (267-270) shows with inscriptions that the adjective *ὑπόχρυσος*, which occurs in the description of the iron seal ring in Menander's *Epitrepontes* 170 ff., is correct and means 'gilded.'—F. Dornseiff (270-271) calls attention to the oriental philosophy in Aesch. *Pers.* 840 ff., and in 271-272 discusses the two terms applied to Aphrodite in Plato *Symp.* 180. That *Πάνδημος* originally meant the protectress of the whole people is agreed, and he shows that *Οὐρανία* expressed the popular belief in Aphrodite as a goddess of moisture, hence we can see that *Οὐρανός* from *οὐρέω* meant the one who makes wet (cf. Kuhns *Zeitsch.* 29 (1888) 129, and Bechtel *Gr. Dial.* I 39).—Chr. Blinkenberg (272-274) shows that *ἐξήκοντα* in Simonides epigr. Diehl II p. 114, No. 147 must be correct, and citing Pollux 10, 71 substitutes *κάδους* for *ἀμφιφορεῖς*, which restores the meter.—W. Jaeger (274-278) thinks that the author of the so-called *Magna Mor.* (A 34, 1198^b 9-20) controverted Dicaearchus' assertion that the *βίος πρακτικός* was superior to the *βίος θεωρητικός*, by showing that *φρόνησις* deals with human affairs, but *σοφία* with divine, and while his argument was partly taken from the *Nicom. Eth.*, it was expanded with extracts from Theophrastus.

Die Komposition von Vergils *Georgika* (279-321). E. Burck gives a minute analysis of the four books and concludes that Vergil must have planned his work before elaborating it, as the poem flows along without a break; the supposed excursions are found, on closer inspection, to be closely woven in with the rest. It was not so much Maecenas' request as his own deep interest in plant and animal life and the laws of nature that drew Vergil to this work. He is indeed indebted to Diophanes, Varro, Hesiod, Aratus etc.; but whatever he borrowed was treated in his own original manner. The didactic scheme is fictitious, the whole a loving presentation that rises from poetical pictures to philosophical speculations.

Zum zweiten attischen Bund (322-338). V. Ehrenberg shows that the order in which the names of Greek states appear on the stele which records the decree of the second Athenian confederacy throws light on its gradual expansion (cf. *Syll.*³ 147; Hicks *Gk. Hist. Insc.* 81). The last name added was that of the Zacynthians, although some new members came in later. The last change made was the erasure of the name of Jason of Pherae 373/2 B. C. (cf. *A. J. P.* 14, 518-19; and 46, 273). The political circumstances that led to the neglect of the list are discussed. The *σύνταξις* was meant to be a levy to meet special needs, not the yearly *φόρος* of the V century. This second con-

federacy has been likened to the Delian league before it became an Athenian ἀρχή; but the circumstances were now vastly different.

Zur Interpretation des plautinischen Miles (339-375). H. Drexler discusses mainly the second act and verses 612-764. The plot of the broken wall was originally the theme of a Greek play in which a husband or owner of the girl was deceived; then another Greek poet let a slave be the deceived one in order to combine this amusing plot with the Acroteleutium intrigue, which necessitated the later elimination of the slave. The verses 612-764 have for their theme a descriptio morum, a digression that seems intended to cover up the transition to the second plot. We must take the play as a play, as the poet would have us do.

Retractationes (376-384). P. Friedlaender points out that (1) οἱ(αἱ) μὲν ἔπειτα never conclude a verse in Homer without a line contrasted by δέ or αὐτάρ, and that no Homeric verse ends in οἱ δ' ἄρ' ἔπειτα, Kirchhoff's conjecture at ψ 296. (2). The *lusus ὑπολήψεως*, a popular form of amusement was referred to Homer and Hesiod just as the *aenigma pediculare* and the *Iresione* were attributed to Homer. Non lusu illo sed carminibus olim decertasse summos poetas verba evincunt ab Hesiodo tripodi inscripta: ὕμνῳ νικῆσας ἐν Χαλκίδι θεῖον Ὅμηρον. (3) In Archilochi frg. 67a, verse 3, ἐν δόκοις refers to a time or place ubi hostis hostem δέχεται (cf. Hesych. sb. v.). (4) In Archilochi frg. 74, as Arist. Rhet. I, 3. C. 17 shows, Lycambes himself is discussing his daughter (cf. Philol. 49), the poem was written after the quarrel, and was aimed at father and daughter, whose name was of course Neoboule not Neaera(!). (5) In Sappho II, 9 read ἀλλὰ καὶ μὲν γλώσσᾳ <μ'> ἔαγε. (6) Tyrtaeus composed the Eunomia as Aristotle, who had the whole poem, says: ὑπὸ τὸν Μεσσηνιακὸν πόλεμον, which is confirmed by vv. 7-8. Ehrenberg (Neugründer des Staates) places it in the VI century. (7) He defends in Solon c. 1 the distich 39/40 against Wilamowitz (S. u. S. 257) and Reinhardt (Rh. M. 1916). Verses 37-42 contain the earliest enumeration of health, bravery, beauty and riches as desirable possessions, three of which appear in the scholion Diehl 7 and in Pl. Laws 631 C. (8) In the Callim. pap. Ox. 2079 (v. 33) γῆρας and δρόσον are in inverted order; the final optative clause is justified (see below Wilam. Leseifr. CCLXV).

Miszellen: K. Latte (385-388) emends a papyrus fragment published by G. Coppola (Riv. di filolog. 56, 1928, 500) with the aid of Petronius ch. 138, who evidently made use of this amusing poem, which was composed either by Hipponax, Ananius or some author of the Alexandrian age.—Sophie Melikoff-

Tolstoi (389-390) cites passages from Hippocrates to show that *δικαίως ἀποθανεῖν* in Gorgias' Palamedes means to die a natural death, and emends § 19. She agrees in the main with Sykutris (Phil. Woch. 47, 1927, 859 ff.).

Hekatompedon und Alter Tempel (391-415). W. Judeich considers a new discussion of these terms justified as the non-existence of an earlier temple on the site of the Erechtheum has been proved (cf. A. J. A. 28 (1924), 1 ff.), and because of the revelations made from architectural remains by Wiegand, Heberdey etc. In brief he makes it appear that the Hekatompedon (IG I² ed. min. 3/4) was an open space to the north of the temple discovered by Dörpfeld in 1885. It probably received its name from its measurement, and encompassed various sacred localities and some shrines like the treasury buildings at Olympia and Delphi. The Dörpfeld temple was called the Old Temple to distinguish it from the structures that were begun on the site of the later Parthenon. The treasure of the Delian league was deposited in the opisthodomus of this old temple 454/3 B. C., the division of this opisthodomus into two chambers was probably made at this time. The Kallias decree (IG I² ed. min. 91. 92) line 55, tells of placing the treasure of Athena on the right, that of the other gods on the left. The opisthodomus of the Parthenon was regularly called the Parthenon. The old temple was rebuilt after its destruction by the Persians, but without the peristyle that had been added by Peisistratus; moreover a second reconstruction after a later fire is certain. There had been a move to carry out an intention of Pericles to supplant the old temple with a more ornamental building, the later Erechtheum, but owing to the religious conservatism of a large section of the people the old building continued to exist as the centre of the cult of Athena even to the time of Pausanias. Here was placed the golden lamp of Callimachus; here the old wooden idol of Athena always remained.

Der Jerusalemer Euripides-Palimpsest (416-431). K. Horna with the aid of a photograph shows the value of this palimpsest, which has been known only by some inaccurate extracts. It dates from the X century and contains readings that seem valuable, confirming here and there emendations that have been made. Some of the verses are marked as memorable sayings, an early stage of later gnomologies. It contains considerable portions of the Hecabe, Orestes, Phoenissae, Andromache, Medea and Hippolytus besides scholia. An account of the Christus Patiens is added by Horna, which he attributes to Manasses of the X century.

Zum Verfassungsdiagramm von Kyrene (432-457). F. Taeger publishes the text of this important inscription as improved by Oliverio (Iscriz. di Cirene, Riv. di Filolog. N. S. VI 1928),

explains its provisions, and shows that it was a decree issued by Ptolemy Soter, whose general Ophellas had brought Cyrene under his jurisdiction (cf. Diod. XVIII 19, 1 ff.). Ptolemy shrewdly kept himself in the background, and by means of a constitution, mainly oligarchic, but with democratic features, aimed to harmonize the opposing factions. The Doric elements mixed with Athenian are especially interesting.

Lesefrüchte (458-490). U. v. Wilamowitz-Moellendorff continues his miscellanies with numbers CCIL-CCLXVI: CCLII contains interesting comments on Aesch. Suppl., and shows that in the Eumenides 920, ῥυσίβωμον Ἑλλάνων ἄγαλμα δαιμόνων refers to the psephisma of Pericles, which called for a congress to restore the destroyed sanctuaries (Plut. Per. 17). CCLVII: commentary on the Thesmophoriazusae. CCLVIII: The Frogs of Aristophanes contain some interpolations of the IV century; but there was no general revision as H. Drexler tried to show. The new motive for Dionysus' journey (1419) ἵν' ἡ πόλις σωθεῖσα τοὺς χοροὺς ἄγῃ could not have disturbed an Athenian audience at this critical time. Politics had been introduced in the parabasis. Although Pluto does not speak until v. 1414, he must have been present at the beginning of the trial, Pylades in the Choephoroi suffices as a parallel. CCLIX: Thuc. VI 15 καθεῖλεν ὕστερον τὴν Ἀθηναίων πόλιν must refer to the year 404 B. C. CCLXIII: Interesting comments on a vase picture published by Buschor, where the figures of Nemesis and Heimarmene show a combination of belief in determinism and punishment for wrong-doing, as well. CCLXV: In verse 33 of the Callim. pap. Ox. 2079 ἵνα means 'where,' ἦν is demonstrative; he with increasing years would like to continue to sing like the cicada; but with its food, the dew, is associated old age; of that he would like to be rid. Verse 33 is followed by an aposiopesis.

Miszellen: S. Lauria (491-497) discusses the agreement in Eur. Alexander with Antiphon.—W. Kranz (497-500) shows the agreement of Lucret. II 973-1022 with Eur. Chrysippus, and the sunrise in Seneca's Herc. fur. with Eur. Phaethon.

HERMAN LOUIS EBELING.

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REVUE DE PHILOGIE, I, Troisième Série (1927).

Pp. 5-49. Ch. Dubois. L'olivier et l'huile d'olive dans l'ancienne Égypte. Continuation of the author's paper of 1926. It deals with the culture of the olive in the nome of Arsinoe, the modern Medînet el-Fayûm, under the Ptolemies and the Romans; domestic and imported oils; districts and methods of cultivation; manufacture and sale of oil; taxes, tariffs and the

question of monopoly. The permanent value of these researches of Mr. Dubois is as a contribution to the economic history of the Mediterranean world.

Pp. 50-80. Ch. Saumagne. Sur la loi agraire de 643/111: Essai de restitution des lignes 19 et 20. In the author's opinion, "the question of these lines constitutes the center of gravity of the stability of the text". He first gives the accepted explanation due to Mommsen, then seeks to discover if the surviving fragments must be completed by an arrangement that does away with the traditional necessity of paying the vectigal, or if it be not more in accord with the tenor of this law preserved in the text to restore injunctions confirming this state-tax. Having restored the lines under the theory that the law enjoins the manner of paying but does not rescind the payment, M. Saumagne inquires if other stipulations of the Agrarian Law contradict this theory. In conclusion he gives an economic schema of this law and discusses the Thorian Law (Appian, *Ἐμφυλίων* A, 27) as implying the previous existence of the vectigal and showing that Cicero's reference, in Brutus 136, to Thorius refers to the first law mentioned by Appian or to some law of Drusus, but not to the Sempronian Law.

Pp. 81-83. P. d'Hérouville. Une formule cicéronienne qui a fait fortune. The author shows by quotations from writers patristic and profane that the Ciceronian formula used in such phrases as "quaerenti mihi . . . et diu cogitanti," enjoyed literary use and favor for centuries.

Pp. 84-89. Notes et discussions. Jérôme Carcopino. Encore le Catalepton, Réponse à M. Édouard Galletier.

Pp. 90-96. Bulletin bibliographique.

Pp. 97-132. Louis Robert. Études d'épigraphie grecque. A study of Greek inscriptions with restorations. First considered is a decree of the Hyrtacinians relative to a sanctuary at Teos where emissaries are bid dine at a common repast with Cretans.

κα-
λέσαι δὲ καὶ ἐπὶ ξένια τὸς πρεγγεντὰς
ἐπὶ τὰν κοινὴν ἐστίαν εἰς τὸ [Δελφ]ίνιον.

M. Robert justifies this restoration because it fits epigraphically and cites an Eretrian decree, *καλέσαι δὲ αὐτοὺς καὶ ἐπὶ θυσίαν καὶ ξένια ἐπὶ τὴν κοινὴν ἐστίαν*, to show the sacrificial nature of the reception, and another decree, *καλέσαι αὐτὸν ἐπὶ ξένια* [*a* εἰς τ] *ὁ ἱερὸν τοῦ Ἀπόλλωνος*, to show that a sanctuary was proper for the ceremony. Inscriptions further considered are, II. Decrees from Cyrene and Thasos; III. Decree found at Mylasa (in Caria); IV. Inscriptions found at Magnesia (ad Maeandrum); V. In-

scriptions from Erythrae; VI. Inscriptions from Caria. Lastly a discussion of the word *διόρθωμα* in certain technical uses.

Pp. 133-152. Félix Gaffiot. Quelques passages des lettres de Caelius à Cicéron. M. Gaffiot believes that in closely following the tradition of the Codex Mediceus, chances of errors are reduced in interpreting these letters, which abound in allusions clear to the correspondents, but obscure to us. The method is to assemble all known facts bearing on the case at issue, uninfluenced by any previous emendation or correction, and to proceed in the light of these attested facts, conserving M as far as possible. A translation accompanies each citation. To illustrate, in VIII, 8, 2, he finds Appius Minor in the rôle of plaintiff driven by the blast of public opinion to an action of recovery under the law 'quo ea pecunia pervenerit,' by which claim he discredits himself and his family ("pecuniam ex bonis patris pervenisse ad Servilium"). Hence the irony of Caelius: "Admiraris amentiam," and the metaphor of *impicare*, to seal up with pitch, i. e. "à donner le coup de grâce." He changes "depecuniam" (M) to *de pecuniā*, makes the two infinitives depend on *diceret* and explains the change of time in 'diceret' and 'impicet' as setting aside tense concord for stylistic reasons.

Pp. 151-165. Pierre Chantraine. Le rôle des désinences moyennes en grec ancien. A study of the voices and endings of the Greek verb in their development and signification, with examples largely from Homer, though prose is not overlooked. In Homer, where active and middle are often used indifferently, the author finds the debris of an Indo-European inflexion where the endings had no special function and the secondary middle corresponded to the primary active endings. The middle at an early date signified some interest and since it was set over against the active in respect to form, it developed a tendency to grow more precise in its semantic value. It formed the passive and doublets were developed—e. g. *πόλεμον ποιεῖν, πόλεμον ποιείσθαι*—whose nice differentiation is defined for each set. So came a late development of expression separately in separate dialects in which Attic played a singularly happy part.

Pp. 166-176. Notes et discussions. S. Lambrino. L'Archéologie en Roumanie. Covering two works on archeological discoveries in Istria under the direction of M. Pârvan and two works on the Greek and Hellenistic penetration of the lower Danube and the beginnings of Roman life at the mouth of that river.

Pp. 179-192. Bulletin bibliographique.

Pp. 193-198. A. Meillet. Deux notes sur des formes grammaticales anciennes du grec. Two matters are treated: I. Sur

la désinence de 2^e personne du duel au prétérit, and II. Sur la flexion de *δῖς* chez Homère. I. The agreement of Russian, Lithuanian and Attic Greek imply that -tā(n) served as dual ending in the 2nd per. past in part of the Indo-European group; that *εἰχέρην* (Soph. O. R. 1511) and *εἰπέτην* (Plat. Euthyd. 294) are old forms and that fluctuations of -τον and -ταν (-την) exist, but where found in MSS should not be changed without good reason. II. A discussion of the two series of forms of *οἶς* (*οφι*; *οφυ*) *οἶός* and *οἶος*, and of *οἶες* or *οἶες* in ι 425. The latter is possible, "since repeated letters are not noted in the oldest mss." One explanation would be a blending of the two series of types and another and simpler a long *ο*. Further, inflection of this word shows the composite character of the Homeric dialect. Lastly, the forms indicate two distinct types, the one ancient, the other created by analogy.

Pp. 199-210. A. Ernout. *Vaccillo ou Talipedo?* A discussion of Lucretius III, 504, "tum quasi vācillans," where on account of the anomaly of the long *ā* and the doubled consonant, talipedans has been suggested. M. Ernout after a searching study rejects this and justifies the text and the Lucretian use of such doublets as vācillans, vaccillans, metri causa.

Pp. 211-233. Gustave Bardy. *La Thalie d'Arius*. A study of the remains of the Thalia preserved in Athanasius. Some of the questions considered are the relation of the Thalia to the songs composed to popularize his doctrine among the lower classes; the identity of Sotades, the Egyptian whom Arius imitated; the meaning of the phrase *ἐν τῇ ᾗθι καὶ τῇ ἐκλύσει τοῦ μέλους*, with reference to the possible (or perhaps impossible) prosody of the Thalia; the textual tradition transmitted by Athanasius; extracts from the Thalia and prose citations containing possible portions of the Thalia. The author concludes that while it can add little to our knowledge of the Thalia and general literature the value of the study is its import to the doctrinal history of the IV century.

Pp. 234-249. Georges Ramain. *Horace, Art poétique*. I. A discussion to determine the proper place of verses 136-152, which M. Ramain, after showing their incoherence in the train of ideas, places after ll. 38-45. II. An explanation of the plan of the *Ars Poetica*, dividing it into three parts, the first containing general precepts, the second precepts "sur les genres", the third personal advice. The poem presents ideas not systematically but follows literary exigency or the penchant of the author and is an intimate talk among friends in dedication and advice both earnest and sincere. A pleasing and convincing paper.

Pp. 250-259. Notes et discussions. A. Ernout. Notice by

the editor of Dr. Bohumil Ryba's *Catilinae Conjunctio* and of the *Terenti Comoediae* edited by R. Kauer and W. M. Lindsay.

Pp. 260-288. Bulletin bibliographique.

Pp. 289-310. N. Deratani. *De Rhetorum Romanorum Declamationibus*. Second installment of the article begun in 1925. Noting the greater obscurity in which the origin of the greater declamations is involved, the author limits his efforts to fortifying the way for future investigators. From comparison of vocabulary and style, the declamations, I and II excepted, are, following Ritter, assigned to two classes, of which the latter is later and belongs to the second century A. D. Then follows a comparative study of the common origin and time-order of separate declamations including X, showing that the theory of Reitzenstein that the declamations are not integral, but agglutinations of fragments of disparate times, is in no way applicable to all; and that classes I and II are to be assigned to one school but different authors and that the rhetors, when they found their material, at times were imitators of their associates.

Pp. 311-324. F. Butavand. *Des fragments de l'Odyssée dans le texte étrusque de la momie d'Agram*. An examination of the fragments left undiscussed in a previous article in the *Rev. de Phil.* for 1926. The paper concludes with a discussion of the problem of the Etruscan language and its possible solution through further finds of the same nature in lower Egypt and in the museums. Lastly comes a discussion of the bearing, on the text, of the Mediterranean peoples changing their numerical system from that founded on a base of eight to the decimal notation.

Pp. 325-326. Ch. Picard. *Mithra à Thessalonique*. An inscription from Istria showing a Greco-Iranian cult of Helios-Mithra confirms a previous conjecture of Mithraic influence at Thessalonica.

Pp. 327. A. Vaillant. *Sur un fragment d'Épicharme*. M. Vaillant emends *ἄριστον* to *ἀμψιστόν* = *ἀναμψιστόν* (Hesychius).

Pp. 328-334. Bohumil Ryba. *ΚΑΘΥΠΕΡΘΕ*. An exegesis of Apoll. *Argonautica* I 922-5, where *κ.* is shown to mean "du côté de la haute mer," toward the high sea, and the origin of the mistaken interpretation "to the north" is explained.

Pp. 335-353. E. Cavaignac. *Aspects économiques de l'impérialisme Athénien*. An exposition, in view of certain recent publications in the field of Greek scholarship and in the light of the European War, of the economic history of imperial Athens and of the underlying Athenian character, in their bearing on the Sicilian disaster. A brilliant study showing the paramount importance of economic conditions and national psychology on the

course of historical events and not without a possible application to the world of today.

Pp. 354-361. Henri Bornecque. Collation du manuscrit de Saint-Gall des *Amours* d'Ovide.

Pp. 362-368. Notes et discussions. E. Bickermann. À propos des *ἀστροί* dans l'Égypte gréco-romaine. A brief but brilliant study of the word *ἀστροί* and the Greek institution it designates.

Pp. 369-381. Bulletin bibliographique.

CAROL WIGHT.

REVIEWS.

Studies in the Script of Tours. I. A Survey of the Manuscripts of Tours: Vol. I. Text, 245 pp., Vol. II. Plates. By EDWARD KENNARD RAND. The Mediaeval Academy of America, Cambridge, Mass. 1929. \$50.00.

Thanks to work like this, paleography promises to become a popular subject even in a land lacking in old manuscripts. The Survey consists of a descriptive text of 245 pages, and a separate volume of two hundred splendid collotype plates (12 x 16 inches), many of which contain several examples; indeed only about fifty of the manuscripts listed fail to receive illustration. The first chapter gives a brief—too brief—account of the libraries of Tours. The second chapter—Characteristics of the Script of Tours—is a concise description of the important traits, though, as is usual in books printed in America, it suffers somewhat from the lack of specially cut type. There follows a careful statement of the Carolingian reforms in the system of ruling, which Mr. RAND first explained in Lindsay's *Pal. Lat. V*. This new criterion is here used with excellent results. There are also concise statements about customary dimensions (the script-space is given in every case), about gatherings, signatures, punctuation and abbreviations: here a full list of the regular ones is printed and due notice called to the symbol for *tur* as a criterion of date—see RAND's article in *Speculum*, 1927, 52.

In chapter IV comes the very helpful account of the development of the Script of Tours. There are nine periods distinguished—*hoc opus, hic labor*—before the tenth century, followed by a summary account of the changes in the tenth, eleventh and twelfth centuries. With a delicate sense of responsibility, Mr. RAND refrains from overrating his assignments; in fact he frequently drops notes of caution as to the inconclusiveness of the evidence, and in a few cases goes so far as to change his opinion after the plates had been numbered and printed.

In the first period (The Earliest Books of Tours) he has somewhat boldly, though with some hesitation, included the Ashburnham Pentateuch as a product of Tours, also a Paris fragment (No. 5), which he later (p. 87) assigns to the third group. He also admits that he is somewhat daring in calling the second section "The Irish at Tours". It would perhaps have been safer simply to recognize individual Irish and Insular scribes there without assigning to them the dominant rôle for the period. Some of the manuscripts listed here are difficult to date and place. The Pre-Alcuinian Style (Period III) Rand dates about 770-96. Here, as in a previous study, he includes

the Reginensis Livy, and though he gives little attention to the old question of the diverse claims of the cursive versus the half-uncial, he seems inclined to side with Traube.

The pages on The Reforms of Alcuin (Period IV, c. 796-820), on the other hand, accord a larger share in the reform to Alcuin than Traube was inclined to recognize. The Perfected Style is treated in the fifth section (c. 820-834) and The Mid-Century (c. 834-860) in the sixth. Then follow Period VII (Post Mid-Century, c. 860-70) and Period IX (Decadent Perfected and Revived Cursive, c. 870-900). A Franco-Saxon Style is tentatively admitted on the basis of ornamentation under group VIII and assigned to the years 835-900.

Mr. RAND briefly summarizes the story of the scriptorium thus (p. 77): "At first Tours was behind Luxeuil, Corbie, Fleury, and possibly other centers, but, particularly under Alcuin, it overtook its rivals, and in the remarkable products of the Mid-century held the foremost place in Europe. Then it yielded the palm to Franco-Saxon art, and at the end of the ninth century went into a conspicuous decline. From this it slowly emerged in the tenth century, and from that time made further and further strides toward a place of high eminence, which it attained in the Renaissance of the twelfth century." What a fascinating book Mr. RAND could write on the history of culture implicit in the first sentence of that quotation.

Part B gives (81-206) a summary description of the 231 manuscripts that he has included (some tentatively) in his list, and the names of the 68 others that he has examined and rejected. The descriptions give information about rulings (complete in every case), gatherings, signatures, script, abbreviations, punctuation, correcting hands, illumination (very briefly, in view of Köhler's forthcoming work), indications of date, and a selected bibliography. There follow an index of manuscripts, an index of plates, an index of authors (however, without explicit references to the passages used), and a general index.

When, if ever, we get similar works for the other scriptoria of France, some of Mr. RAND's assignments will doubtless be criticized in the light of such collections; but it is equally certain that other editors will be aided to success largely by Mr. RAND's courageous sifting, his uncanny knack for detecting elusive traits, and his demonstration of how the work must be done. Let me also add that though this book is not designed to serve as a chrestomathy, the resourceful teacher will certainly do well to use it as such. It contains so much related material that it will provide good practice in discrimination; the author, by his unassuming presentation of his views and his candid statement of the problems, lures the student into active participation, and the classification is so lucid as to obviate waste motion. The promised sequel, which is to contain a minute

study of the Desnoyers *Eugippius* and the Paris *Acta Concilii Ephesini*, will surely do much to clarify the problems of the emerging Carolingian styles. Mr. RAND and the men who were privileged to aid in providing this magnificent work are to be most heartily congratulated.

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Symbolae Osloenses: Fasc. VI, 76 pp., 2 Pls.; VII, 94 pp., 1928; VIII, 129 pp., 1929.

This series of Classical Studies, begun in 1922 under the auspices of the Graeco-Latin Department of the University of Oslo, now includes 8 *fasciculi* and 2 *fasciculi suppletorii*, the latter containing longer essays, viz. I, *Die Wortspiele in den Reden Ciceros*, by H. Holst, 119 pp., 1925, and II, *Inscriptiones Semiticae Collectionis Ustinowianae*, by J. Pedersen, 70 pp., 1928. Most of the papers in the last three volumes, like those in the preceding ones, are by members of the Oslo faculty, presented in five languages, and ranging in length from mere notes to substantial studies, and in subject from the history of Greek religion and mythology and New Testament criticism and exegesis to papyrology, sculpture, numismatics, etc. I have already reviewed Fasc. III, 1925, in *A.J.P.* XLVI, 4, Oct.-Dec., 1925, pp. 380-3, and shall now briefly discuss the content of a few representative articles in these last volumes, which I recently received from Dr. S. Eitrem, one of the co-editors of the series, whose acquaintance I renewed last spring in Oslo.

Fasc. VI. Of the ten articles herein the two major ones are by Dr. Eitrem, *The Necromancy in the Persai of Aeschylus* (pp. 1-16), and his co-editor Dr. G. Rudberg, *Zur Personenzeichnung Platons* (pp. 17-32). In the former is discussed the influence of the dead on the living first in Homer and then in the *Persae*. This influence is unimportant in Homer except for the *Nekyia*, which, however, shows that the oracles of the dead still had a hold on the upper classes of the time to whom the rhapsodists sang, since it includes a detailed description of a psychomantic ritual, a part of which seems to be pre-Homeric or Aegean in origin. Aeschylus' knowledge of necromancy is based upon this episode, the scene in the *Persae* therefore reflecting Greek and not Persian notions. It is divided into two parts, the former—the sacrifice to Darius—corresponding with the libations in *Odyssey*, XI, 27 f., the latter with the epode or “ghost-compelling anthem” sung to evoke the shade of the king. The “nerve” of the scene is belief in the power of heroes to protect and aid the living in great crises, a belief which

grew apace in Attica after the Persian Wars. At the end is discussed the similarity between the fate of Xerxes, his juvenile *hybris*, failure, and ignominious return, and that of Phaethon, from which the author concludes that Aeschylus was influenced by that myth both in the *Persae* and the lost *Heliades*. The second essay continues an earlier one on "Platon und Attika" (Fasc. V, pp. 23-32), in which it was shown that while Plato had a sense for landscape, lines, and colors, as a man and poet rather than as a systematic philosopher he had a still greater interest in men. The feeling for landscape, which reached him through vision, hearing, and smell, was relatively less important to Plato, as it had been to Homer, since his main interest was the inner nature of man. While the *Dialogues* furnish only a few pictures of the outer man, *e. g.*, the ironical poet Meletus and the beautiful Charmides, they contain many of the inner man—of growing youth in the earlier ones, mature men in the middle ones, and old age in the later. Thus Plato's character-drawing throughout his literary activity of over a half century kept pace with his own continuous development. In *Ein römisches Frauenporträt in der Antikensammlung der Nationalgalerie* (pp. 60-8, Pl. 1), H. P. L'orange discusses a head in the Paus collection already called in Eitrem's catalog, *Antikk-samlingen*, Oslo, 1927, no. 65 and Pl., the "Head of a young Roman Lady". From its Claudian hair-fashion, which began at the close of the first century B. C. and reached its full vogue under Claudius, the head can be dated between 20 and 50 A. D., and from its ivy-crown—which would equally fit a Maenad, poetess, actress, or chorus-singer—it is regarded as the head of a poetess, chiefly because of its similarity to the Catajo head (Arndt-Bruckmann, Tafel 397-8).

Fasc. VII is dedicated to the eightieth birthday of Professor U. von Wilamowitz of Berlin (Dec. 22, 1928). Here again the two leading articles are by the editors, *Der Platonische Sokrates* (pp. 1-24), by Dr. Rudberg, and *Der Skorpion in Mythologie und Religionsgeschichte* (pp. 53-82), by Dr. Eitrem. In the former the study of Plato's character-drawing begun in Fasc. VI is continued in relation to the personality of Socrates. The attempt is made to solve the complicated problem of what is Plato and what is Socrates in the *Dialogues*, and it is shown that within the limits of memory and poetry, speech, thought, and art, Socrates there lives on as a composite picture of truth and poetry. In the earlier *Dialogues* the portrait is realistic, especially concerned with Socrates' self-examination, irony, and personality; in the mature ones his personality becomes a type; and in the latest, when Plato expresses thoughts alien to those of his master, he gradually disappears. Thus Socrates has a tangible personality, but in the continuous strife of ideas be-

tween him and Plato, he gradually yields to the latter, the picture changing and developing even as Plato himself changed and developed. In the latter essay on the Scorpion Dr. Eitrem has shown from the monuments that its origin is to be sought to the south and east of the Mediterranean in Egypt, Mesopotamia, and Crete, and discusses it in mythology (especially in the Cretan sagas of Orion and Minos), in connection with the *genitalia* of animals and humans, in astrology, and on religious monuments, such as the Mithras Relief in the Villa Albani. He shows that in North Europe a similar rôle was played by other animals—the crab, toad, reptiles, etc. In Numismatica (pp. 83-91), H. Holst continues his study of coins in the University Cabinet begun in Fasc. VI (pp. 69-76, Pl.) with a discussion of the Roman and Byzantine coins found in Norway there garnered, adding a chronological list of all such found there. In Una descrizione di Roma degli anni 1669-70 (pp. 46-52 and 2 text-cuts), H. P. L'orange discusses a manuscript now in the Museum of Bergen which describes an Italian journey, probably undertaken by Pastor Paus, in the form of a diary interspersed with anecdotes and episodes. It is important in cultural history, *e. g.*, the social conditions at Rome at the death of Clement IX, and in archaeology, since most of the notable ruins, monuments, and collections then in the city are described.

Fasc. VIII. Here again the main contribution is by Dr. Eitrem, Zu Philostrats Heroicus, which with its two excursuses occupies nearly one-half of the volume (pp. 1-56). It is a critical study of the work of the Lemnian or Second Philostratus in which the sophist, a member of Julia Domnas' circle at Rome, attempted through the mythical histories of Trojan heroes in the form of a dialogue to revive the expiring popular religion of his day. Interesting are the examples of god *ἐπιφά- νεται, συνονορία* with hero or god, and the story of the *ἀναβίωσις* of Protesilaus, similar to the god-worship of Apollonius of Tyana. The writer's conclusion is that Philostratus' attempt to effect a renascence of the popular faith was futile since he was enmeshed both in a living cult and at the same time in the mythology and theory of the past. In his second article Numismatica (pp. 114-119, and 2 text-cuts), H. Holst presents one Byzantine and two Roman gold coins found in Norway. It is interesting in showing the probable route by which the one struck at Augusta Treverorum for the Gallic emperor Maximus Magnus (383-88) reached the north via Germany, while the one struck at Constantinople in the joint reigns of Basil II and Constantine VIII (976-1025) may have reached Norway through Harold the Tyrant who visited the Byzantine capital in the reign of Michael IV (1034-41), when Basil's coins were still in circulation.

Enough has been said to show the lively and deep interest in the Classics at Oslo, and also what can be accomplished by a local body of scholars working together, a phenomenon seemingly impossible in our universities.

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Beiträge zur Lehre vom indogermanischen Charakter der etruskischen Sprache. II. Teil. VON EMIL GOLDMANN, Professor an der Universität Wien. Heidelberg, Carl Winter's Universitätsbuchhandlung, 1930. Pp. xiv + 397.

Professor Goldmann, on the basis of his previous studies (cf. *A. J. P. L.*, 215-216), essays the interpretation of a number of Etruscan inscriptions. His volume is divided into five chapters: (1) on the Cippus Perusinus, C. I. E. 4538, pp. 1-114; (2) on the pulena-roll, pp. 115-151; (3) on the phiale of Narce, C. I. E. 8412, pp. 152-218; (4) on the lead plate of Magliano, C. I. E. 5237, pp. 219-252; (5) on the Agram Mummy-roll and other inscriptions, in the light of his conclusions already reached, pp. 253-362. There follow an *Anhang*, pp. 363-367; *Indices*, pp. 368-386; *Berichtigungen und Nachträge*, pp. 387-397.

The method is throughout of the combinational character, which is applied with care but with results differing widely from those of preceding scholars who have handled the same inscriptions. Professor Goldmann finds in most of these texts prescriptions for the proper performance of sacrifices, and consequently an abundance of words meaning 'offer,' 'offering, libation,' 'pitcher' or other vessel for pouring, 'liquid' suitable for libation. The trouble is that such work leads to very few concrete definite meanings, and gives relatively little assistance in building up the lexicography; the meanings are normally too vague.

The professed subject of the volume, as given in the title, seems to withdraw rather into the background in the text. The words for which approximate meanings are reached are often, not always, equated with some words found in Latin or other Indo-European languages, but without any formulation of phonetic equivalences. I list here certain ones, selected at random: pp. 52-53, *tezan tesne tesnś* 'Gefässbezeichnung,' cf. Latin *testa* 'Krug, Urne, Topf'; p. 64, *clcl* 'Angehöriger,' to clan *clen* 'son,' from **gnā-no-* by dissimilation (so also earlier scholars, p. 69 *ftn.*); p. 67, *papals-* 'grandchild,' cf. Greek *πάππος*

'grandfather'; pp. 82-84, four roots meaning 'give, offer,' tur- cf. δῶρον, acil- cf. agere, scuv- cf. σκεῦος, ut- = ot- cf. οἶτος, αἶσα, utor; pp. 121-123, ratacs 'brother,' from *bhrātrakos with loss, dissimilation, and syncope, cf. Umb. fratres; p. 174, infinitive sekase to root in Greek ἔχω and the ending seen in Skt. jīvāse, Latin vivere; p. 236, sal 'salt'; p. 238, laxe huvi 'Milch bei der Kuh' = 'Milch der Kuh,' cf. lac and (locative) bove (*g^wow-); p. 253, hilar 'Urne'; p. 283, cilθ- 'Hirte, Leiter, Regent, König,' a god's title, cf. Latin celer, Got. haldan; p. 283, spur- 'Gemeinwesen, Volk,' cf. Latin Spurius; p. 299, pute 'opferrein,' to Latin putus, purus; p. 300, var 'water,' cf. Skt. vāri; etc.

These are fair samples of his etymologies, perhaps somewhat better than the average. The sceptical critic will say that such coincidences and assonances can be found between any two languages, without proving kinship (thus French feu and German Feuer; Latin deus and Greek θεός; English have and Latin habere, French avoir; English day and Latin dies; English deer and Greek θήρ); and that it will be necessary to build up a corpus of results, lexical and phonetic, which will serve for the interpretation of new inscriptions, before one can conclude (1) that the objective interpretation of Etruscan has been reached, and (2) that Etruscan is an Indo-European language. And that is not yet.

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